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JOHNSTONE & DUNCKLEE

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Address of Hon. Jacob Broom.

Delivered before the Michigan State Agricultural Society at their Seventh Annual Fair at Detroit, on the 4th day of October, A. D., 1855.

GENTLEMEN OF THE MICHIGAN STATE AGRICULTURAL SOCIETY:—Could one from an eminence view the wide extended territory which forms our Nation, and at a glance take in the various industrial pursuits of this free and happy people, witnessing at the same time the grandeur of Nature in the prairies, fields and valleys, irrigated by magnificent lakes and numerous rivers, and the happy results of the Arts and Sciences, the interminable highways and "iron tracks" from the centre to the sea-board, and casting his eye to the east or to the west behold the vast expanse of waters on either side studded with the white canvas of freighted vessels bearing abroad the products of this nation, his heart would naturally swell in exaltation and pride, while boundless thanks to the great Author of all, would irresistibly break through the barriers of indifference, and wed him in closest devotion to the best interests of his native land or adopted home.

We have reason, indeed, to congratulate ourselves that within the limits of our country are contained all the elements of *real* independence. Of necessity, no freighted vessel need steer its course toward our shore, nor any nation pour in upon us the products of the labor of its people to the disparagement of that of our own. Industry here cannot fail to produce all that we want, and plenty to spare to other nations less favored; and to such end should our individual exertions and the legislation of the land be earnestly directed.

Under the happy influences of our republican institutions, every inducement to industry exists. No church power can exact the tithe of our proceeds, nor extort through the operation of law the black-mail. Here Republicanism dignifies labor, and, under the American doctrine of "equal rights," admits not of the incubus of pampered aristocracy. Here no tyrannical oppression of government can be permitted to retard or interfere with the merciful sentence of God

upon the first transgression, when Adam was "sent forth from the garden of Eden to till the ground;" "IN THE SWEAT OF THY FACE SHALT THOU EAT BREAD;" and here, as if to a favored people, the best adapted portion of the earth, for that purpose, in soil and climate, becomes an inheritance where "out of the ground made the Lord God to grow every tree that is pleasant to the sight and good for food:" and here, truly, having every facility, is man induced to take the highest degree of pleasure, and derive the greatest extent of benefit, comfort and happiness which he can experience on earth, in fulfilling the Divine sentence.

Man is peculiarly adapted to labor, and is gifted with qualities and capacities which enable him to command the fructuous properties of the soil, and to apply them to the various uses necessary to his existence, comfort and happiness. The wind and the waves form no obstacle to his locomotion, nor does the thunder of a summer cloud hush, nor distance forbid, the expression of his thoughts or the communication of his ideas. His capacity for labor enables him to cause the subtle lightning to leap at his command instinct with intelligence, and the restless waters in their most impetuous fury, safely to transport the burden of his treasures. Without labor, his volition would be in vain, the earth itself would almost refuse him subsistence—his thoughts and ideas would be confined to his own breast and the ear of his neighbor—his position on earth would be stationary, and neither wind nor wave, nor Art nor Science, could contribute much to his necessities or happiness. Labor is necessary; and so long as man shall regard obedience to God as the golden rule of human existence, it must be also esteemed honorable, for God himself hath commanded it. Not only so, the experience of every day exemplifies that it is also promotive of health and contentment, the *summum bonum* of earthly attainments.

But, unfortunately, the standard, or representative of labor established to regulate and equalize an interchange has been productive of serious evil to the social condition of mankind, by being carried too far beyond the design of its original introduction. It has too largely interfered with the republican character of our own people, and even taught some to affect to despise labor, and to consider the "sweat of the face" as servile and ignominious; so that, while perfumed with the aromatic essences of oriental climes, such would even disdain to sit beside the uncorrupted tiller of the soil, and partake with him in the production of his own labor. So, also, with the mere lady of fashion, who in foreign silks and expensive cachmeres will idolize a piano and spurn a spinning wheel, worship a dunc and affect to despise the practical common sense of the husbandman's wife or daughters.

I speak not in disparagement of, nor would I be understood as casting the slightest reflection upon

members of well bred society, who take an interest in the affairs of life, and do not wrap themselves in their own conceit, while in possession of that which cost them "no sweat of the face" and spurn the condition of the rest of mankind; but living in a republican nation, reared under the influences of republican institutions, and deeply venerating the memory of their republican founders, I feel naturally inclined on suitable occasions to strike at those follies which, like noxious weeds in your gardens, in their effect upon valuable plants, are calculated to weaken or impair the legitimate fruit of genuine republicanism.

Much is to be done to preserve the republican character of our people, and to prevent to too great an extent such classification as would conflict with the original feature of the institutions of our free society. The policy of our people should be to preserve American traits against the insidious encroachments of foreign manners and customs, and to perpetuate the pure simplicity of the revolutionary spirit of 1776. The old matron of that day, over her cup of tea, could be to her neighbor at the same time the lady and the republican woman; and exhibit an ease, cheerfulness and dignity of manner which would equally adorn the American ladies of the present age, and at the same time add brilliancy to the beauty of republicanism. With our republican fathers, no affectation in their intercourse with each other, could have induced them haughtily to extend the kid-covered tips of one hand, while with the other the moustache, if any, would be arranged, when probably, it needed no arrangement, and to hasten the termination of an interview by gestures of haughty impatience, or the exhibition of shame in being seen in converse with a son of industry.

But in order to realize the actual intention and beauty of republican life, attention should be given towards intellectually equalizing the society of free government, and elevating our whole people from follies on the one hand and ignorance on the other. Education is the medium through which to cultivate as nearly as possible such equality; and although it cannot be expected that those who devote the most of their time to labor, and in retirement require relaxation and rest, can ever equal in learning those whose time is mostly spent in the improvement of the intellect, yet the general mind of the people, disciplined and stored so far as practicable, would operate in the two-fold manner of rendering individual intercourse profitable and interesting, and giving in the aggregate, a character to our nation for intelligence and virtue in accordance with the original design of our institutions.

The human mind is wonderfully susceptible of cultivation. It requires not merely that books should be constantly kept before it. Over the plough and over the arvil the exercise of memory and thought will strengthen and enlarge it and render it still more keenly susceptible. Man is made after God's own

image, and it is but in the accumulation of knowledge and the enlargement of his mind that he may approximate to the Divine likeness.

In forming, then, societies such as yours for the promotion of the different departments of labor, it would be useful to bestow attention to the improvement of the mind, and incorporate it as a component part of the system. It is not, and should not be a mere emulation between, for instance, the States of Michigan and Ohio, as to which can produce the best and most from an acre, or commit to the best advantage the "*blackest ingratitude*," according to *Petronius Arbitor*, in making the finest coat from the wool of a sheep and afterwards dining on his carcass. But your aim should be also to advance the character of your country, dignify labor and secure the greatest degree of happiness to your countrymen. The system of "*prize essays*" among others, is admirably calculated to encourage observation, and to lead to the exercise of thought as to the best means of advancing the art of agriculture in all its branches, and to habituate man to look beyond the mere culture of the field and the raising of stock, to those higher attributes of his nature which so transcendently distinguish and elevate him beyond a mere physical existence.

The improvement of the mind would also act practically upon the best interests of the science of agriculture, and is indeed, indispensable to it. Each department of labor requires the protection and fostering care of government, and none more so, perhaps, than agriculture and manufactures. They are the foundation of commerce and trade.

Fertile fields and active machinery will enrich a people, unless they become impoverished by the arts of speculation through a bloated credit, arising from fictitious capital. Intercourse or commerce, then, with other nations should be restrained and regulated by such wholesome laws as would effectually guard the grower and the manufacturer from having thrown back on their hands their produce and manufacture for want of funds in the country to purchase them, or from suffering total loss from credit sales, one or the other of which is too generally the case when the balance of foreign trade is largely against our country. Thus it becomes important that the mind of the farmer should be well informed and strengthened by education and exercise, that he may be fully qualified by advice or action in our legislative halls, to advance his own interest and the prosperity of his nation.

Again: American agriculture should supply the demands of other nations, especially with bread-stuffs and cotton, as England has done for many years with her manufactures. For this purpose treaties with foreign nations should be of such practical character as to secure so desirable an end; and the ambassador charged with that duty, if not of the agricultural class himself, should be aided and prepared by the practical suggestions of those who by experience and reflection

are competent. The nature of our soil and climate, the former extensive and abundant, and the latter including nearly every degree of latitude, gives to us the entire ability.

A great obstacle, however, remains to be overcome—an evil which spreads its baleful influences over all industrial classes, and mostly covers with ruin its projectors. The dazzling prospects of speculation attract capital from agricultural, and other substantial interests of the country and the people at large, and directs it to individual aspirations for wealth and affluence. This is but seldom realized; and thus men crowd the large cities of our seaboard, pining away in health under blasted hopes and withered prospects, and with destitute families on their hands, whose health and fortune would have been alike promoted by frugality and honest labor in turning out the fulness of the earth.

This evil as well as others, may in a great measure be remedied by your exertions and the action of government in upholding and advancing the art of agriculture, until it shall offer inducements for the investment of capital, and thereby attract from our large cities thousands of men who subsist almost without employment. It would, also, have a salutary effect in another point of view. The Old World is constantly pouring upon our shores its starving myriads, who are accumulating in our thriving localities without the means of subsistence, and for whom there is not a sufficiency of labor, who, under an extensive and prosperous system of Agriculture and Manufacture might find employment, and in a common industry the better learn to assimilate with the people of America and appreciate the value of the institutions of freedom.

Our vast country contains thousands and millions of acres of arable land as yet untouched by the implements of agriculture, seeming, almost, to the starving dependents upon our large cities as the tender mother, who, by displaying her bosom, invited and attracted her child from the brink of destruction to the fountain of nourishment and safety. For one, I can never cease to regret the diversion of my own inclination in youth from the pursuit of agriculture to the mental drudgery of a laborious profession. The driving of oxen, it seems to me, would have been more agreeable than the effort to drive obstinate juries and learned judges, and the raising of wool to the fleecing of strong clients and shearing of the feeble.

Such societies as yours, while they excite emulation in agricultural improvements, and awaken a commendable zeal in that particular branch of industry, may be made also subservient in correcting such evils of policy or of society as might ultimately affect either the interests of the people, or the character or general prosperity of our nation. An ardent love of Country, and a due appreciation of the perfect liberties we are permitted to enjoy, will at all times direct the atten-

tion of the patriot to the welfare and character of his nation, and teach him while pursuing his individual interests to advance at the same time its prosperity and glory. The character of his country is naturally dear to his heart. Its prosperity is his pride. He is in a measure identified with its destiny. Impoverished, it must beggar him—prosperous, it will build him up in contentment and true happiness. Hence his exertions lie in a wider field than mere self-interest. He may labor and produce; but his neighbor from inactivity or idleness has nothing to exchange with him for his products. He must influence that neighbor also to industry, that he may be encouraged in his own; and his encouragement becomes increased in proportion to the extent of surrounding labor. Promote, then, as far as practicable, *national industry*, and encourage a home market for your products by fostering and protecting domestic manufactures. Let Agriculture lead and sustain the system. Let it set the noble example by advocacy and action of retrenchment in the use of foreign wares and manufactures until class after class of industry shall fall in line, catch up the spirit and finally shout their peans over the complete redemption of our beloved and happy country from dependence on foreign labor.

But in order to be effective in such a design, the coöperation of government is essentially requisite. To this end but too little attention hitherto has been bestowed. Reason upon the subject has been too generally overpowered by the zeal of an unwholesome party-spirit, and the necessary protection, which should be permanent and unchangeable, except such practical alterations as may be suggested by the test of experience—has been made the subject of party caprice or of individual ambition or aggrandizement; and thus, by instability, has offered no encouragement to the investment of the requisite capital.

To this, in a great measure, has been owing the diversion of capital to the field of speculation; an evil to which I have before alluded, and which is destructive of industry and prejudicial, as well to the wealth and greatness of the Nation, as to individual prosperity and happiness. It has, time and again, led to excessive importations, and caused unfavorable balance of trade, thereby generating poverty and distress among the people, and paralysing the sinews of labor and trade. Such an evil, if permitted to increase must be also productive of others of a lamentable effect upon the affairs of the nation. Where there is no industry there must be idleness. Idleness makes men vicious, and losing respect for laws and the rights of others they become ready for riot and commotion, and even dangerous to the safety of government itself. The history of France attests the truth of this position, especially after the impolitic treaty of commerce with England in 1786, which led to the ruin of her productive labor, while that of Persia and Modern Greece, Egypt and the Turkish provinces, present in-

stances of the languishing effect of deficiency in national industry. Indeed, were we to scan the pages of our own history, although youthful in our existence as a nation, we might find much to condemn in the operation of government on this important branch of political economy, and learn lessons of wisdom and value of inestimable effect upon the future career of our Nation.

Commerce, also to be profitable to the nation and to the merchant likewise requires that protection should be given by government to national industry. Our Colonial history—a history exemplifying the disastrous effects of dependence upon a foreign nation—clearly indicates such necessity. While the Colonies were obliged to exchange the raw material for the manufactured article, the Mother country derived all the advantages and profits of labor and commerce. It brought no funds to the coffers of the Colonists, and consequently kept them in an impoverished condition. This was the policy of England, in order that she might foster and promote the industry of her own immediate people. That very industry sustained her commerce, and gave to it its basis.* The people were incited to industry, and the nation became active, prosperous and great. From that involuntary dependence and slavish contribution to the welfare of Great Britain, the Colonists finally emancipated themselves and declared the ability of the people to preserve themselves independent. Indeed, so earnest was the spirit of *entire independence*, that the immortal Jefferson, the author of the great Declaration, seeing and fully understanding and appreciating its extent, could not withhold the expression of his concurrence in the wish of Silas Dean "*that there were an ocean of fire between this and the Old World*;" while Franklin, too, in answer to taunts in England, when asked what the United States would do for clothes if they went to war with Great Britain, remarked that "*the American people can make their own clothes, or wear their old clothes over again*."

The true policy of our government from that time to the present, and through all time to come, should have been to foster, strengthen and cherish that same spirit, discountenancing all that was foreign and promoting all that was national—whereas, on the contrary while the country, in the single instance of cotton, possessed a capacity to raise a sufficient supply for the whole world, that of an inferior quality was, at one time in our history, purchased in Bengal, as was, also the manufactured article in Hindostan and England, to the great disparagement of our cotton growers and of tens of thousands of our own indigent, but capable citizens.

Thus I have endeavored, in a concise way, to represent the necessity of an effort on the part of Agri-

*Lord Sheffield, in his observations on American Commerce, says: "The only use and advantage of America Colonies, or West India Islands, is the monopoly of their consumption and the carriage of their produce."

cultural societies to encourage and uphold other branches of industry and commerce, that the producer may the more readily find a safe, certain and profitable market for his produce, agriculture be upheld and promoted, the people become industrious and contented, and the nation wealthy and prosperous.

But mere wealth and prosperity is not all that a nation requires. China and Hindostan, with all their profitable labor, are far from being great in the scale of nations. They want enlightenment. Neither, on the other hand, will enlightenment of itself, render a State great and happy, as exemplified by Greece in its maturity, or Rome in the Augustan age. But enlightenment and industry, hand in hand, will and must elevate a nation to the pinnacle of greatness.

You will pardon me for trespassing on your patience beyond the mere specific requirements of your Society. This occasion is to me one of deep interest. I feel that I address my countrymen; men, whose education and pursuits have net, and *cannot* shut out from the mind and the heart a glowing pride in the greatness and glory of their country, and who would even scorn the idea of individual interests separate from and irrespective of the honor and condition of their nation.* Besides which, it may not be entirely unprofitable in your pursuits, to reflect upon the operations of other nations, that you may mark the effect of unwise and mistaken policy in some, and profit by the soundness of it in others. To advance the interests of one's nation is, indeed, a primary duty. Nature herself suggests it. As our affections naturally cling to the scenes of our earlier homes, so does our pride attach in maturity to our national domain. The honor of our country grows into an idol. Let that honor be once insulted and the agriculturist will fly from his plough, the manufacturer abandon his loom, the mechanic his bench, and the professional man his civic labors, and together rush to its standard, in sacrifice of time and blood to avenge the indignity. Surely, the prosperity and greatness of our nation are no less calculated to awaken a just pride in our hearts, and equally to demand our energies and devotion. In a free government like ours the character and condition of the nation does but reflect the character and condition of the people; therefore are we concerned morally and patriotically in giving shape and tone to our public affairs—to see that we fall not, under partial or imperfect legislation, to the deplorable condition to which Spain, Portugal, and other countries have been reduced—to guard against distress and embarrassment pervading the nation—and, in short, to see that our nation shall avail itself of all the natural advantages which Heaven has so bountifully bestowed upon it, exceeding by far those of any other nation on earth.

Agriculture cannot stand alone. Its prosperity is

intimately connected with, and dependent upon the general prosperity of the nation, and is therefore interested in promoting national industry, and securing a proper division of labor. Portugal, perhaps, with her vines, was possessed of as great facilities and advantages in 1703, as the United States now possess for the purposes of agriculture; yet in that year, after a highly prosperous manufacturing career of upwards of twenty years, under an absolute prohibition of the woolen cloths of other nations, their government was induced, by the speciousness of Methuen, the English Ambassador, to listen to the syren proposition of an abatement of one third of the duties on their port wines admitted into England, while the duty on those of France should remain unchanged; *provided, Portugal should not exclude British woolen manufactures.* The treaty was made and ratified, under the delusive opinion that Portugal would find an increased and extensive market for her wines, and be able, at the same time, to purchase cloths at a much less price than they had theretofore cost. In theory, it was plausible; but in practice, most ruinous. Its flourishing manufactures were destroyed; the nation became drained of its gold and silver to pay the balance of trade which resulted therefrom, amounting annually to more than four millions of dollars, and poor Portugal, through the superior statesmanship of Methuen, fell from the happiness and prosperity which had before that characterized it, to a hopelessly impoverished condition. Its own people, being without employment, could not afford to consume its wines; and the loss of the home market was not much more than compensated by gain in the foreign, and thus that nation lost entirely the tested advantages which it had experienced for twenty years in *combining manufacture with Agriculture.* England profited vastly; and by way of exemplifying the difference between a nation promoting, and one regardless of, domestic industry, I extract from the British Merchant as follows: *

"Our gain by our Portugal treaty, and our excess of exportations on that account, is a vast increase of the Nation's treasure, the employment and subsistence of great numbers of manufacturing people, an augmentation of our rents, and the saving the landed interest from the charge of maintaining such numbers of poor, as have subsisted themselves by the excess of exportations." Again: †

"During the twenty years prohibition, the Portuguese succeeded so well in their woolen manufactures, that we brought thence no gold or silver; but after the taking off that prohibition we brought away so much of their silver, as to leave them very little for their necessary occasions; and then we began to bring away their gold"

But, perhaps, it may be objected that my remarks

* "I think it is the duty of every good man, primarily to respect the welfare of his native country."—Sir Josiah Child, 1693

* Vol. III. page 24
† Vol. III. p. 47

savor somewhat of a partizan character, and are therefore improper on such an occasion. But this I deny. Unfortunate for the country is it that party-spirit ever ventured to tamper with the subject as a party measure. It is one of equal concern to men of all parties—deeply affecting the vital interests of the nation and of the whole people—it is an American question—one in favor of enhancing the greatness and prosperity of the American nation by means of the powerful union of American agriculture, American commerce and American manufacture.

The general prosperity of a nation depends upon, not a concentration of labor upon one or two particular occupations, but the proper diffusion of it through the various branches required by civilized society; and as government can have no higher or more important duty to perform than that which shall secure to the people happiness and contentment, and at the same time, promote the greatness, prosperity, power and wealth of the nation, I must contend that it is highly improper that party spirit should be permitted to distract its operations, and mar the great and glorious prospect within our reach if a sound and judicious national policy be steadily pursued.

England, as a nation, has fully understood and acted upon such policy. Party spirit, in that respect, has never retarded her advancement. She has always with a far-seeing policy taken care of her national industry. So early as 1731 her jealousy was aroused towards even her own people inhabiting these Colonies, and she manifested a disposition to suppress the manufacture of paper here because it was feared that it would prejudice the industrial system which she fostered for her own direct people. She could scarcely in that jealousy, allow the people of the colonies to manufacture woolen and linen cloths for the use of their own families; or even from their hemp and flax to make traces and halters for their horses. Complaints poured in upon the Lords Commissioners of trade and plantations, and upon Parliament, from the British merchants, planters and manufacturers, that "*the Colonists were carrying on trades and setting up manufactures injurious to them, and to the interests of the parent country*"; whereupon Parliament directed the Board of Trade and Plantations to ascertain and report "with respect to laws made, manufactures set up, or trade carried on in the colonies detrimental to the trade, navigation, or manufactures of Great Britain."

Here we find the predominant characteristic of the island government, one which has marked it to the present day that of fostering and protecting home industry; and the report of the Board fully confirmed it; for therein they remark: "It were to be wished that some expedient might be fallen upon, to direct their thoughts from undertakings of this nature; so much the rather because these manufactures, in process of time may be carried on, in a greater degree, unless an

early stop be put to their progress by employing them in naval stores." * * * * "Moreover we find that certain trades carried on, and manufactures set up there, are detrimental to the trade, navigation and manufactures of Great Britain;" and they conclude their report with the query "whether it might not be expedient to give these colonies proper encouragement for turning their industry to such manufactures and products, as might be of service to Great Britain, and more particularly to the production of all kinds of naval stores." *

That very policy on the part of England finally led to, and occasioned, the rupture between her government and our revolutionary fathers, as is manifest in our colonial history, and in the causes enumerated in the American Declaration of Independence. Our fathers, in the step taken by them, assumed that Americans were competent to take care of themselves—that if there were any natural advantages in soil and climate here, instead of inuring to the benefit and advantage of a distant people, they of natural right ought to be realized and enjoyed by the inhabitants of the soil.

In fostering and protecting, then, the policy of national industry, we are but carrying out the principles of the revolution, which require not the controlling influence of a party-spirit, but the patriotic union of all parties, and loyalty of all true American spirits to the standard of their real independence.

By the American revolution the people escaped from the bonds of all oppression. Other nations in previous times had also thrown off the shackles which crippled the industry of their people, and they profited consistently by the changes which were effected. Even the people of Great Britain, in feudal times, when wars and imperfect agriculture constituted their principal employment, groaned under their poor and oppressed condition, and total dependency upon their lords. Greece in her early history, and Macedon and Rome, as well as most of the semi-barbarous states, were alike oppressed and degraded by feudalism. The people having no employment of their own, yielded their services to their lords in return for maintenance, and followed them in their contests and predatory incursions, setting at defiance the rights of neighbors as well as all restraints of even crowns and government. From this barbarous condition the people were ultimately released by those considerations of policy which resulted in the establishment of manufactures and the fostering of agriculture, and which have also, with the aid of sciences advanced mankind to the summit of civilization and happiness. Industry and enlightenment have constituted the two powerful levers which have raised the civilized world to what it now is; and while other nations less favored than our own, have used them to their advantage, and elevated their character to great-

* Macpherson's Annals of Commerce.—Vol. 3.

ness, I can see no reason why we as a people, should be less regardful of the means at our command to enable us to surpass them all and reach the very highest eminence of national greatness.

In the pursuit of that noble object you have united yourselves in association. Voluntary association is capable of performing much. It has accomplished wonderful results, in the various objects which have occupied the attention of mankind in almost all ages of the world. The power of human genius, by its agency, has been cherished and developed, of which,

"The silent pillar, lone and gray,"

the obelisks and catacombs of ancient Egypt,

"Those temples, palaces, and piles stupendous,
Of which the very ruins are tremendous"

stand as imperishable monuments. By its operation the prison bars have been broken, and the oppressed have rejoiced in the light of liberty. Its influence is recognized in the advancement of christianity through heathen nations, dispelling the gloom of uncertainty and lighting up the benighted mind with a knowledge of the word, the love and the glory of the Eternal God.

Perseverance in your object will accomplish all you seek; and not only yourselves, but your state and our nation will be advanced by your exertions. The noble tribute of Michigan here laid upon the altar of our independence, in the magnificent display of her industry, energy and enterprise by which we are this day surrounded, affords an earnest assurance of the devotion of her sons to the general prosperity of the nation. Go on and prosper. Your example is worthy the emulation of other States, and must undoubtedly exercise a happy influence upon the destiny of our country.

But in bringing this address to its close, I cannot refrain from urging upon my countrymen as applicable to the subject, the necessity at all times, of a close and vigilant devotion to the UNION of our States which constitutes us a nation. Prosperity, if possible, without that union would fail to accomplish the happiness and welfare of the people. With national pride destroyed, and the dismembered fragments of a once glorious union thrown in conflict upon the same current of free-blood on which the perfect Ark was launched in sublime majesty to float through countless generations, this people would present a condition too deplorable for contemplation. Let us then be friends to that glorious Union; let us guard well the sanctity of its spirit against all encroachments or influences, whether foreign or domestic; and, that we may realize the full and happy results of industry, with the arm of true patriotism sustain and uphold it beyond the conflict of passions and the malevolence or designs of its foes.

A VERMONT FARMER says: I wintered last season about two hundred sheep on wheat straw, with one bushel of oil cake to the hundred sheep per day, and now they are fat, although but thin when I bought them.

Meteorology of the United States and Canada.

About one year since, we had the pleasure of traveling through a portion of Ohio and Michigan in company with Robert Russell, Esq., an extensive farmer of Fifeshire, Scotland. While here his attention was given to the Meteorology of the United States; we have just received the *Glasgow Daily News* of September 18th, in which we find the following report of a paper read by Mr. Russell before the British Association for the advancement of science.

As we intend to call the attention of the farmers of Michigan to the subject of Meteorology as connected with agriculture, we ask of them a perusal of the following. J. C. H.

Professor KELLAND took the chair.

ROBERT RUSSELL, Esq., Kilwhiss, Fifeshire, read a paper on the Meteorology of the United States and Canada. He first drew attention to the physical geography of North America as influencing in a very particular manner the meteorological phenomena of that country. The Appalachian chain, from northern Alabama to Maine, runs parallel with the Atlantic coast, and though only from 2000 to 4000 feet in elevation, exercised a marked influence in giving peculiar development to certain atmospheric disturbances which took place in the Atlantic States. To the west of this chain lies the vast valley of the Mississippi, its surface forms an easy ascent towards the Lakes of about one foot in a mile. This great basin is thus exposed to the free course of the south winds from the Gulf of Mexico. But the Rocky Mountains on the west, stretching from the Arctic Circle, appear to be the grand feature which in a great measure determines the peculiarities of the meteorology of North America. This range has an average elevation of 10,000 to 12,000 feet, which is almost unbroken to the Isthmus of Panama. This vast natural wall forms a barrier to the trade-winds of the Caribbean Sea, as they cannot cross this ridge and flow into the Pacific. By means of this elevated land, which forms the isthmus connecting the two continents, the trade-wind is gradually directed northwards until it reaches Texas as a south wind, which is the prevailing one in that State through the year, but more especially in summer. The great fertility of the climate of the United States and Canada is to be chiefly ascribed to this physical feature of the country. The flow of the south wind in winter brings moisture and mild weather—in summer intense heat, with thunder storms. The wind which is entirely opposite in its character to the south, is the west. In winter, a due west wind is intensely cold over the whole territory of Canada and the United States, and it often blows with great violence; there is no relaxing of the cold weather while it continues. In summer it is dry, and the sky assumes that bright azure tint which is so striking to one from our island. It is a singular fact, that a west upper current flowing across the Rocky Mountains seems to prevail almost constantly during the whole year. This must never be lost sight of in discussing the atmospheric phenomena of North America. The upper current is nearly due west at Washington and the States at the south; it is a point or two north of west in the New England States and Canada. The west and north-west winds of the United States must be regarded as the descent of the upper currents. In fact, the winds of the United States, especially during

great atmospheric disturbances, may all be considered to become modifications of the south and west wind. The indications of the thermometer and hygrometer are entirely in favor of this arrangement. The N. and N. W. winds must be regarded as modifications of the upper westerly current descending to the surface of the ground, and the S. W., S. E., E. and even N. E., as modifications of the south wind. The difference betwixt the temperature of the Arctic current and the Gulf stream, as they meet beyond the Newfoundland coast, is not nearly so great as the difference of the temperature, in winter, between the west current which descends along the eastern slopes of the Rocky Mountains, and the south wind from the warm waters of the Gulf of Mexico. The vast territories of the United States to the east of the Rocky Mountains are subjected alternately to these two currents so opposite in their characters, and hence the great changeableness of the climate, to which we have nothing that can be compared in Europe. The exceeding coldness of the west wind arises from its being robbed of its moisture as it crosses the Rocky Mountains. It is specially worthy of being kept in mind, that the west wind, or its modifications, is light and pleasant in the warm season, but intensely cold in winter, and blows with great vehemence when it succeeds the south wind. After the west wind has blown for some time in winter, the whole area over which it has extended is subjected to a great depression of temperature. As a general rule, the temperature rises in the far west in the winter for some time before it rises in the Atlantic States. The weather first moderates in the territory east of the Rocky Mountains and west of the Mississippi, by a south wind, 500 to 700 miles in breadth, settling in and blowing along the eastern slopes of the Rocky Mountains, and probably extending into the Arctic Circle. The rise of temperature thus takes place over all the region swept by the south wind. The rising of temperature is apparently propagated from west to east in the United States, by the south wind flowing in succession over those States which are more westerly. This is the cause of the winter storms of the United States traveling from west to east, as has been maintained by Prof. Espy, who was the first who made the discovery, and which has since been corroborated by Professors Hare and Loomis. The distance between the ridge of the Rocky Mountains and the east coast of Florida is about 1400 miles, but in the latitude of Newfoundland, the Rocky Mountains are nearly double that distance from the Atlantic. The south wind never seems to occupy at any one time the whole breadth of the country from western Texas to eastern Florida. The south wind is rapidly propagated from the west along the northern shores of the Gulf of Mexico, but it is almost as rapidly destroyed on its western edges by the cold upper current descending along the eastern slopes of the Rocky Mountains, and penetrating, as a surface wind, this warm current from the Caribbean Sea. In this manner the western edges of the south wind are raised into the upper current, and drifted towards the east. Thus the winter storms of the United States are always succeeded by a cold wind from a westerly direction. Mr. Russell exhibited charts of the weather of November, 1854, illustrating the action of one of these storms, which he experienced while traveling through the north-western States. The chart of the 10th November exhibited the aerial gulf stream, at 7 A. M., flowing to the east of the Mississippi, and filling the whole valley southwards, as far as the Lakes (be-

yond which his observation could not extend) with warm moist air, while at the same hour, immediately to the west of the Mississippi, in Iowa and Missouri, the temperature is very low where it was warm the day before. The southerly current was about 700 miles in breadth that morning, for the Atlantic States were then occupied with cold air in the same manner as the Middle States were a day or two before. Below we see the southerly wind banked on both sides by cold air, at 7 P. M., on the 10th of November:

Middle States		Atlantic Coast	
* Wisconsin,	S. E. 52 deg.	Maine,	N. W. 52 deg.
† Illinois,	N. W. 56 deg.	Mass,	N. W. 21 deg.
Kentucky,	S. W. 55 deg.	N. York,	W. 21 deg.
Mississippi,	S. E. 66 deg.	Virginia,	-34 deg.
W. Florida,	S. E. 72 deg.	N. Carolina,	N. 35 deg.
West.			
* Iowa,		W. 24 deg.	
† Missouri,		N. W. 35 deg.	

The cold air on the Atlantic States soon disappears, and they are in their turn subjected to the influence of the southerly current, which raises the temperature. The chart of the 12th November showed that the cold westerly wind had made great advances, for the temperature was then lowered over the whole of the Mississippi valley west of the Alleghania. On the 12th snow fell over a great extent of country around Lake Michigan. It snowed all that day when Mr Russell was at Indianapolis. In the western States from Texas to Wisconsin, a distance of 1100 miles, the weather was excessively cold for the season; while from Florida to Maine, a distance of 1300 miles it was extremely warm. A few observations on the 12th inst. show this:

Western States.		Atlantic States.	
Iowa,	N. 11 deg. 7 A. M.	Maine,	S. W. 54 deg. 7 A. M.
Wis.,	N. W. 59 deg.	Mass.,	S. W. 53 deg.
Missouri,	N. W. 26 deg.	N. York,	E. 57 deg.
Mass.,	N. W. 34 deg. 9 P. M.	N. Carolina,	E. 60 deg.
Texas,	N. 36 deg.	Georgia,	S. E. 64 deg.
		Florida,	S. W. 70 deg.

The air was at the freezing point in the States of Louisiana, Mississippi, and Alabama, on the morning of the 13th, and frost occurred also in Florida on the morning of the 14th. The cold air reaches the Atlantic coast in the north east parts of Florida sooner than at any other station on the coast; it was 36 hours later in reaching Maine, which lies considerably to the east. The first traces of cold air were seen on the morning of the 10th in Iowa, but it did not reach Massachusetts on the same parallel of latitude till the morning of the 14th. The distance between the two stations was rather more than 1000 miles, thus showing an average rate of progress of less than 10 miles an hour. In winter, however, the progress of the cold wind is often 36 miles an hour, and it is an important circumstance to bear in mind that the rates of motions of storms differ so materially. The figures on the charts show not only the temperature of the air at 7 A. M., but they also show the amount of moisture, as the temperature at that hour is a clear approximation to the dew point. The observations at 9 P. M. also approach the dew point of the vapor. Looking at the arrows in the chart, Mr. R. could see no other system of arrangement than the one he had adopted of referring the N. and N. W. winds as modifications of the current which crosses the Rocky Mountains; and the S. W., S. E., E. and N. E. as modifications of the south wind from the Caribbean Sea; for, while the surface winds were sometimes easterly, the middle current was from the S. W. or S. The indications of the thermometer and hygrometer furnished strong argument in favor of this classification of the winds during storms, and a full discussion

of phenomena would be equally in favor of it. In a voyage from Charleston to Havana last winter, Mr. R. had his attention drawn to the northers of the Gulf of Mexico, which have been the subject of considerable discussion among meteorologists. Dr. Hare considers that they might be derived from the north-easters of the Atlantic States blowing into the Gulf. In one of the lectures which Mr. R. had given before the Smithsonian Institution at Washington, he had thrown out the suggestion that the northers were occasioned by the descent of the upper current in the north-western States, from the fact of a norther occurring while crossing the Gulf stream to Havana on the night of the 22d of January last, at the very time a N. W. wind was blowing, after a snow storm, in the north-eastern States. On tracing this storm since coming home, he found this completely verified, as the storm travelled from Texas to Key West, lying to the south of Florida, at the rate, at least, of 30 miles an hour. The south wind on the 21st blew clear, but a strong gale as the steamship sailed down the Florida coast, while a snow storm swept the northern States. The northers begin on the Rio Grand and at Tampico, and are propagated from west to east over the Gulf in a similar manner to the wintry storms of the States. The northers only occur during the cold season, and are consequent to the descent of the cold air from the upper current, which crosses the Rocky Mountains. The changes of temperature are very great, and almost instantaneous in the north of Mexico as soon as the norther begins to blow, although the south wind has been prevailing for days. In Texas the thermometer was at 81° at 2 P. M. on the 20 Jan. last; with the south wind 60° at 9 P. M., and down to 32° on the morning of the 21st, and at 18° at 7 A. M. of the 22d, with the northerly wind. The sudden fall of temperature shows that the progression of the norther is from west to east. It would appear that the displacement of the warm air over the Gulf by the cold air of the American continent is the means of diverting the stream of warm air from the Caribbean Sea to the eastward, and thus giving an easterly progression to the south winds of the United States. The northers only blow during the cold season at the time the west winds become so cold. Mr. R. then referred to the north-easters of the United States, and entered minutely into their action. They were considered to be generated by the south wind or the south-west wind forming a reverse current in the same manner as the sea breeze—the action in the two cases being very similar. He had more than once given the same explanation to the phenomena of the rainy north-easters of Europe. When he was at Washington, Professor Henry directed him to a paper by Professor Mitchell, North Carolina, where almost the same view had been advanced as far back as 1831, in accounting for the north-easters of the United States. Both Dr. Hare and Professor Espy have expressed doubts whether there are two kinds of storms in the States—the former authority considering the north-easter when of long continuance and when it is not followed by a violent north-west wind, as distinct in its character. But Mr. Russell was rather inclined to think, if storms can be said to travel from west to east during the winter, the same may be said of them during the summer. The north-easter being generated by connection with south-west middle current, it is of no longer continuance than the west wind is moving at a slow rate towards the Atlantic. In autumn the storms move at a slower rate than they do in winter, for the west wind is then

much less violent, and in this way the north-east surface wind blows for a longer period, until it is upset by the west wind. The reason of north-east winds being more developed in Canada and the New England States during winter storms than in the south was referred to the physical features of the country favoring this action. A number of diagrams were exhibited to illustrate this part of the subject, and the forces which maintained the lower north-easter and the middle south-west current were pointed out. The cause of the violence of the west wind in winter was then shown. The weather during summer was regulated by the same principles, but the north-west wind then lost its power, in consequence of its being warm and elastic. The thunder storms and tornadoes generally drifted from west to east in the middle States, and from north-west in the northern States. This arose from the clouds being formed in the upper current and drifted towards the east at the very time that the south wind was prevailing. The thunder and tornado-clouds usually drifted in the south wind over the States bordering on the Gulf of Mexico. The hurricane-clouds also drifted in the southern stream of warm air and were often propagated along the Atlantic coast. The fluctuations of the barometer were attributed to the fluctuations of density of the air at the surface of the earth. This was Dalton's hypothesis, which he thought explained the fluctuations of the barometer more consistently than any which had been offered. It did not explain all in Britain, but it explained a great deal—the apparent exceptions were all grouped together very consistently. The height of the barometer was inversely as the temperature, or rather moisture, for the latter was a more permanent cause of high temperature. Diagrams were exhibited to illustrate this connection between the rise or fall of temperature, and the fall or rise of mercury. By adopting the arbitrary scale of 5 deg. of heat as equal to 1.10th inch of mercury, which indicates the south wind to be about 10,000 feet in height, a great parallelism between the curve of temperature and inverted curve of the barometer was exhibited. A more perfect explanation of the fluctuations of the barometer at Alabama could not be given. The south wind being lighter, depressed the barometer at every place when the temperature was raised. The low barometer extended in a long line from the Gulf of Mexico to the Lakes, and traveled to the east as the rains and high temperature did. The grand exception to the fluctuations of the barometer being occasioned by fluctuations in the density of the air at the surface of the earth, arose in the West Indian hurricane, when a depression of two inches was sometimes observed to take place. The only theory which successfully met this phenomena was by Professor Espy, in which the wind blowing towards a central space rose in consequence of the extrication of latent caloric, by the condensation of moisture through the expansion of the air causing a reduction of temperature below the dew point. Prof. Espy maintained that the whole force generated during hurricanes can be accounted for by the effects of heat. Professor Hare, that part was due to electrical agency. In the case of the sea breeze a considerable body of air is put and kept in motion by slight differences in the weights of adjoining columns of air. Were such differences of the atmospheric conditions as the chart of the 10th of November exhibited between the mouth of the Mississippi and Montreal, tremendous disturbances would ensue. When the distance is great, the power is diffused in moving the

whole body of air betwixt the stations. The expenditure of power in this diffused manner may be compared to the flow of the Mississippi over the last 1400 miles of its course, where the fall is less than three inches to the mile. On the other hand, when the Niagara tumbles over its great precipice, it expends much power at once. The hurricane might be regarded an aerial cataract, only the air being forced upwards. If a slight fall of rain produces such remarkable effects as are noticed on the passage of the squall cloud, what must be the power evoked by the evolution of latent caloric in hurricanes. Six inches of rain have been known to fall during some hurricanes. The caloric set free by the condensation of this amount of water over every square mile is equal to that which would be generated in the burning of 2,620,000 tons of coal, allowing one pound of coal to evaporate 13 pounds of water. The clouds of the hurricane interrupt the ominous calm as suddenly as the smooth flow of the stream is changed at the brink of the cascade. Prof. Espy has made this neglected department of meteorology the subject of most profound investigation. At the last meeting of the British Association in Glasgow, Prof. Espy attended and expounded his celebrated theory of tropical hurricanes. He would have again appeared before you at this visit, had not the fatigues of a voyage across the Atlantic in the evening of life, deterred him from doing so. Mr. R. said he had conveyed a request from him to Sir D. Brewster to move for a committee of the British Association to enquire into the distributing forces of the tropical hurricanes. Mr. R. concluded by saying that he hoped it would be granted, as the present state of the science imperatively demanded it. He also referred to the kindness and liberality which he had experienced during his researches, from the American men of science, from one end of the country to the other.

Sir John Ross complimented Mr. Russell for his very excellent paper, and agreed entirely with his conclusions. Sir John gave explanations of one or two thunder-storms that had come under his own notice on his voyage to the Arctic regions. He recommended the Association to take up Mr. Russell's suggestion to make further investigation into the important subject.

Professor GRAY, of Aberdeen, one of the secretaries of the Section, said that the interesting information brought forward so lucidly by Mr. Russell, showed what might be gathered by the careful study of such meteorological registers as those of the Smithsonian Institution, to which Mr. R. had had access. He had drawn very different meteorological conditions in the large continent of America than what could be studied in the insular position of Britain. Professor Gray proceeded to state that he had occasion, during a residence of two years in North America, to study the meteorological phenomena, and that he could confirm many of those mentioned, especially those attending the prevalence of the winds from W. and N. W.

Professor NICHOL was in favor of some of the storms of this country being rotatory in their character, from the changes which took place in the winds.

Mr. TAYLOR disapproved of certain observations made on the subject by Prof. Espy. He also expressed his approbation at the able manner in which Mr. Russell had handled this subject; and expressed a hope that Mr. Russell's suggestion for farther investigation into the subject would be taken up by the Association.

Mr. Russell, in reply, stated that he had examined

a great amount of data on this subject, but had found no evidence of rotation. Some of the most eminent scientific men of the day held the same opinions. He defended Prof. Espy's principles as applying to the tropical hurricanes. The rotatory theory of Sir Wm. Reid could not explain the phenomena of storms. The advocate of this hypothesis never attempted to explain how, during the norther of January last, in Texas, the thermometer could sink from 81 degrees with the south wind, to 18 degrees with the north wind. What had fallen from some of the speakers to-day only showed the necessity of the British Association taking up the subject and thoroughly examining the matter.

Rotation of Crops.

MR. EDITOR:—According to my promise given some time since to make an occasional contribution to your valuable monthly, I propose taking up a subject which ought to command more attention from our Michigan farmers, viz: rotation of crops. It is a subject upon which volumes might be written, varying with the different sections of our country, climate, and nearness to market, and which in my hands I am afraid will receive but little justice; but still it is my desire to impart all I know to my brother farmers, and to receive in return a share of their experience; in this way we are a mutual benefit to each other.

Very great advantages to the farmer have resulted from the judicious system of the rotation of crops. The substitution of proper rotation with the application of all the manures that the farmer can manufacture from his own resources, for the old method of dividing the farm off, one part for permanent pasture, another for meadow, and a third for cultivation, has resulted in increasing the product of our country to an astonishing degree, and instead of the land under cultivation becoming so barren and unproductive that the crops would not pay the expense of culture, the product has increased with increased cropping.

By the aid of analytical chemistry the farmer is enabled to ascertain the chemical constituents of the soil and the crops produced, and he should endeavor to select such crops for his rotation as will be most unlike in their composition, that each may not extract the same ingredients from the soil, the advantages of which must be very obvious.

By preserving a judicious rotation, and seeding the land with artificial grasses, with the last grain crop, the growth of worthless savagery is prevented and the ground is occupied by a crop that will be as profitable for the purposes of pasturage or meadow as many of the grain crops, and will furnish a supply of vegetable matter evenly distributed over the land to be turned in with the tillage for the next succeeding grain crop, for which it will supply a larger amount of aliment for the crop than can be applied at the same expense by any other method. There is a peculiar advantage and economy in this system of manuring

with grain crops, that should always be taken into consideration in the economy of agriculture.

The labor of men and teams is dispensed with, and Dame Nature in her perfect and efficient manner supplies, after art has scattered the seed, the proper organic food for the crops to be produced, evenly distributed and well incorporated with the soil.

We find by experiment and analysis that red clover and buckwheat are admirably adapted for this purpose. In selecting the crops that are to constitute a rotation the farmer must always be governed by his position with regard to market and the purposes to which he can apply them on his farm, and also the crops that exhaust his soils the least and return in the form of refuse the greatest amount of matter to keep up the fertility of his land. Besides these characteristics of the crop, those that have the least amount of water in their growth are least liable to decay, and are the least fluctuating in market value.

When the average price of wheat is \$1.00 per bushel and the land is well adapted to its culture, the following rotation will be found a profitable one:

Seed the land with large red clover. 12 quarts per acre, and plow the crop under when in full blossom or when some of the earlier blossoms have commenced to turn brown; then drill in the wheat without cross plowing the land, as this process will leave the clover well covered.

Sow the clover on the wheat in early spring or when the land is well checked by the last frost of spring, and pasture but little the succeeding autumn. The ensuing summer in August, turn it under as above and again sow with wheat; by this process, clover and wheat and the crop of wheat every other year, providing the average yield to be 20 bushels per acre, will pay all the expense of culture, seeding, harvesting and threshing, marketing and interest of investment in land at \$50 per acre and 10 per cent. interest, and the fertility of the land will be improved.

The most common rotation practiced in New England and Eastern New York, is grass or potatoes, oats or barley and wheat or rye, seeding again with the last crop.

This rotation with a careful husbandry and applying of all straw, stalks, &c., to the land as a fertilizer, with the addition of such inorganic manures as this land will be apt to become deficient in by hard cropping, will maintain the original fertility of the soil, and it may become as fertile as desirable if the manures are applied with an unsparing hand. The old maxim is true that the soil will feed its owner with liberality in proportion as he feeds it. If long yard manure is to be applied, it will be most profitable when spread broadcast and plowed in when plowing for corn, and it should not be plowed more than six inches in depth with a surface plow, but it should be subsoiled to the depth of seven inches more to insure an ample depth of friable soil from which the crop may draw its sup-

port and also to give it the capacity of draining an amount of water that will supply the deficiency in the surface soil by evaporation. This will also prevent the injurious effects of excessive rain. But I am fearful of occupying too great a space in your columns, and will close by recommending to those of your readers who desire more and better information on this subject, two standard works, Norton's Elements of Scientific Agriculture, and Johnson's Agricultural Chemistry—books that should be found in every farmer's library.

Yours very respectfully, Wm F. SANDS.

Jonesville, Oct., 1851.

On The November Farmer.

EDITOR OF THE FARMER:—I wish to make a few remarks on some of the communications in your November number; I hope they may be found interesting to your readers.

So much has been written on the subject of chess, that the public are almost tired of this matter. Without entering into a dissertation on this much vexed question, I merely state that I have had twenty-five years' experience in growing wheat, and that I do not believe in chess; I never saw an instance of wheat turning to chess, and I find that the best wheat growers are of the same opinion.

The letter of S. Barent, on Marls, is &c., deserving of attention. There is no doubt but that the application of marl as a manure for wheat, &c., would be productive of much benefit to Michigan, but there are some kinds of marl which contain protoxide of iron and these are injurious to vegetation. Marl is a mixture of clay and lime and is generally composed of the debris of rocks, and the remains of shell-fish, &c. Mr. Barent's soil seems principally to consist of vegetable remains, and is more "muck" than "marl." The heap having been exposed to the atmosphere for two years, was much improved, as the silicates and phosphates were by this means dissolved, and rendered suitable food for the roots of plants.

I would suggest that instead of drawing the muck to the barn yard, it should be heaped in the field where it is required, and the barn-yard manure piled on it, and covered over with muck or marl. The liquid manure will be absorbed by the muck, and when all are mixed together, an excellent manure will be formed.

The soil of marshes and swamps is generally composed of the remains of vegetable matter, and the strata are formed by the accumulation of sediment at the bottom of lakes or pools.

J. C. Rogers enquires for drain tile, and you have referred him to Mr. J. Daines, of Oakland Co., who manufactures a considerable quantity of these articles, and I believe sells them at reasonable prices. I have seen draining performed in every shape and form, and refer you to my essay on that subject, for a full statement of my opinions.

I prefer $1\frac{1}{2}$ inch pipes to the present horse-shoe-shaped tile, they carry off water better, and are much cheaper than the tiles. In my essay, I have stated the number of pipes of 12 inches in length, which are necessary to drain an acre of land at the following distances.

This is the table:

At 21 feet apart,	2074 pipes per acre.
25 "	1742 " "
30 "	1532 " "
35 "	1343 " "
40 "	1089 " "
50 "	571 " "
60 "	295 " "
66 " or 4 rods	660 " "

Drains should be made $2\frac{1}{2}$ or 3 feet deep, provided a sufficient outlet can be found. Main drains should be at least six inches deeper than the minor drains, and be fitted with pipes *large enough* to carry away the water of their tributaries. Drains should be sloped like a wedge, and should be made so narrow at bottom that the tile shall fit them exactly.

Mr. Tibbits comes out strong in favor of salt as a manure for orchards. He says, "I unhesitatingly recommend the application of from five to eight bushels of salt per acre, sown broadcast, early in the spring for the destruction of such insects as find a habitation in the ground." Well said, Mr. Tibbits, but in some cases a much smaller amount will have the desired effect. Common salt is a more useful substance than many are aware. In an Essay on Manures which I have just completed, I have made the following remarks.

"Salt is certainly a very valuable manure. Its uses in agriculture appear to be as follows:

- 1st, It supplies soda and chlorine,
- 2d, It attracts moisture and repels frost,
- 3d, It is soluble and attracts porous substances,
- 4th, It promotes putrefaction when used sparingly,
- 5th, It decomposes with lime and other salts,
- 6th, It kills the wireworm and other insects injurious to vegetation.

Salt when used as a brine is generally destructive to plants and seeds."

When mixed with gypsum, it is an excellent manure, and also has an excellent effect when used in conjunction with barn-yard dung.

"Ammoniacal manures increase the size and luxuriance of the stem and leaves, while salt adds beauty to the blossom, and weight and vigor to the grain or fruit."

H. J. Cushman gives some useful information on the subject of flour and bread. If this communication had been made somewhat earlier in the season, farmers might have derived some benefit from it; as they did not know what to do with their sprouted wheat, and many of them disposed of it at a very great sacrifice. Their experience will be considerably improved by the present state of the market.

Wheat of every kind has improved in value, and buyers are much less squeamish about purchasing

sprouted samples. In fact, sprouted wheat brings a very good price, and is very little objected to, and why is this? *Because it is dry*, and a tolerable fair article of flour can be produced from it. Farmers should be extremely careful to separate the sprouted grain from their wheat; these damaged grains may be of some use at home, but in the market, or at the mills, are frequently the cause of much loss to the farmer.

In an essay on "The Cultivation and Management of Wheat," which I have prepared in order to compete for the premium offered by the State Agricultural Society, are the following passages:

"Grain merchants only require an *excuse* that they may cut down the price of wheat to the lowest figure, and the presence of a few sprouted grains in a sample is sufficient to alarm them wonderfully; but should the farmer part with all his grain *now* and require to purchase it *back again* in spring or summer, he would find that the opinions of these merchants had undergone a change, and that they set a very high value on sprouted wheat."

"Sprouted grains are certainly injurious to flour, but not to the extent that some persons imagine. The heavy, sticky nature of flour, made from wheat partially grown, is principally caused by the damp condition of the wheat, and when the grain is thoroughly dried, a tolerable sample of flour may be produced from it."

These remarks were written three months ago.

Mr. Cushman's suggestions on the subject of baking, are sensible and judicious.

If a great many of the ladies would follow the example of Mrs. A. J. Sibley, and give the result of their experience to the public, through the columns of the *Farmer*, your readers would be gratified. Mrs. Sibley's plan of making good bread from the flour of sprouted wheat is simple and practicable, and worthy of attention.

I agree with this lady that the addition of a little Indian meal is of service in such cases. Indian meal is extremely wholesome and nutritious and has the very useful tendency of causing damaged flour to "rise" well and form a fine plump loaf.

EDWARD MASON.

Detroit, Nov. 12, 1855.

The Value of a Good Cow.

There are but few persons who appreciate the value of a good cow, as compared with a poor one. How many of our farmers regard the prices paid for full blood shorthorns as extravagant and foolish, simply because they have never tested their real merits as compared with the stock they have been so long breeding.

Now I propose to call attention to this subject by a simple narrative of facts. On the 22d day of September, 1854, I purchased a shorthorn cow. She was in low condition, with a calf at her side six

weeks old. I turned her into poor pasture, and gave her a slop of bran and shorts morning and evening till it became time to yard her for the winter. During the winter I alternated her feed between the mash, rutabagas, and small potatoes. The only hay she got was picked from the litter thrown from my horses. This I presume would not be called high keeping by cattle breeders. Now for the result: My family consists of never less than five grown persons. We have used milk and cream freely, have made all the butter we have used on our table, and have sold to our neighbors 1805 quarts of milk at the market price, five cents per quart, which leaves the handsome sum of \$90.25 in one year, up to Sept. 22 1855. Now perhaps some might wish to know the blood of so extraordinary a cow. She is a calf of the celebrated cow Bet, now owned by A. Y. Moore of Schoolcraft, and brought into this county by Henry Hall, Esq., of Plainfield, from Hartford Conn. I think it safe to add that better milkers or easier keepers than the stock from which this cow sprung never trod the soil of Michigan.

Yours truly,
W. S. H. WELTON.

Grand Rapids Oct. 18, '55

Girdling.

[The following letters have been received in reply to Mr. Harrington's inquiries about girdling trees, published in September.]

MR. EDITOR:—In answer to Mr. Harrington I will give my opinion, which is based upon experience and observation. My plan is to girdle timber in the month of August, and cut it down the next winter, and clear it off in the spring following. My reasons for girdling in August are, 1st, that it is less work as it requires but a single hack through the bark to kill the tree at that time, while in the winter or spring it must be cut quite through the sap. 2d, the bark will fall from trees girdled in August, and this is a benefit to the land; the trees also become dry and are much more easily hauled together and burned. I do not think it a good plan to let the timber stand on the ground long after it is girdled, especially where wheat is sown. The trees are always falling down into the grain, and the limbs are continually dropping and in the way. The ground must be cleared every time it is plowed, and taking the loss of grain occasioned by falling limbs into account, it is very often half as much work and expense as it would be to clear the timber off entirely. As to putting fire into the trees while standing, I, for my part, had much rather cut them down at once. In fact, it is seldom that you can burn a tree entirely down; it must be chopped after all, and that is not very easily done after you have had a fire around it, and got it thoroughly seasoned. Every one knows that such wood is very hard, and I actually believe it is more work to chop down half burned trees than it is to fell them before they have been touched by fire.

CHARLES PRATT.

1 Newburg, Cass Co., 1855.

Letter from Mr. Loomis.

I would say to Mr. Harrington that my experience in girdling trees has taught me a lesson, though it was bought rather too dear. When I commenced clearing a farm I was not posted up in the business, and no one about me operated differently from what our grandfathers and the generation before them did. In clearing some the first season, I found the ground cold to almost every crop but ruta bagas; this led me to think that there was some way to bring it to a state of productiveness. The first time plowing, another trouble was that the roots were all green, and it was a difficult matter to get in a crop of any kind. I examined the timber and found the pores most open, and the bark easiest to peel from the wood, the full of the moon in June; so I commenced and girdled some five acres by striking the ax a full blow, lapping the corners so as to be sure of cutting the timber all round. I let this timber stand four years; by that time all the limbs except the largest ones had fallen off, and most of them had rotted. There was but little underbrush on it; this I cleared off the next spring, and the ground looked like an old plow-field. In felling the timber I crossed it as much as possible on the largest trees, then put fire in, following it up by placing the brands and broken pieces on the whole. I had no chopping to do, and the clearing cost me but seven dollars per acre. My success far exceeded my expectations. The trees dying let the sun in upon the ground thus warming and preparing it for crops.

I bought forty acres joining me, on which there were four acres girdled by the man who was boarding with me, and I was knowing to the time it was done, which was June. Clearing this, cost me about the same as the other. I girdled twenty acres for Everet Grey, in the months of July and August, 1846. It did not die so readily as that girdled in June; more trees grew over and lived one year longer. In 1848, I girdled twenty acres more for the same man in the month of August, with almost the same success. Twelve years ago, I girdled fourteen acres in the month of February, and found the result a bad one. The timber did not die as soon as that girdled in June or August; and the basswoods as well as some of the beeches and maples sprouted around the roots. This made the clearing cost more, and the roots remained green longer. My advice to all who wish to clear land and burn the timber is, by all means to girdle it in the month of June. Cut the underbrush two years from that time, burn the ground all over and seed it down till it is wanted. The object of seeding is to prevent foul stuff from coming up, and to shade the ground with a turf, which should be done to all ground remaining untilled.

LEVI LOOMIS.

Ganges, Allegan Co., 1855.

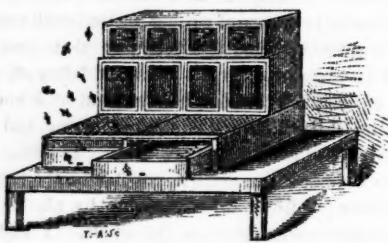
Letter from Mr. Galloway.

MR. EDITOR:—Through the *Farmer*, if you please,

I will give Mr. Harrington my experience in clearing timbered land by girdling. Before the falling of the leaves, I cut all the undergrowth up to about seven inches, the brush of which I placed snugly around the standing timber; I also cut all the old logs. The next spring when all was dry, I put fire to it, which burnt the brush and killed the timber. That ground I cleared of the old logs, and seeded to wheat the same season, and had a superior crop. This process I have pursued three different times, and succeeded as with the first. If timber is only hacked with an ax, it will often leave out again for two or three years. Burning kills the tree at once. Land is much better cleared in this way; the reason I could not give without extending this article too far.

J. A. GALLOWAY.

Hillsdale, Mich., 1855.



Platform Bee-hive.

The above cut represents the new Platform Bee-hive, which was exhibited at our State Fair, and which has drawn premiums and diplomas at ten State Fairs previously. V. N. Billings of Jackson, is the agent for Michigan; Sylvester Davis of N. H., Patentee.

With this hive any one may keep bees with perfect safety and success, since all difficulty and uncertainty are entirely removed.

In this hive is found the most perfect order and system while it combines the most advantages of any hive yet offered to the public.

It is adapted to all locations, such as open houses, stores, offices and attics, either in the country, large villages, or cities.

The Bees may be made to swarm from one or more hives, or may be conducted into any number of hives without swarming, and still have a full supply of Queens.

The bees are entirely protected from the bee-moth and other insects which annoy and ruin the bees. This we warrant, if managed according to the directions which are given in the book.

The bees have an opportunity to exercise in the spring, and clear the filth from their hives, without flying out to die on the snow.

The filth can at any time be removed from the hives without disturbing the bees.

The bees can be fed much earlier in the Spring and later in than in other hives, without warming up.

The bees can be transferred as often as necessary, to give them new comb, and without killing them.

It prevents all possibility of robbing, while feeding.

It is thoroughly ventilated throughout, feed drawers, hives, honey-boxes, and chambers.

The work and progress of the bees may be seen in the hives, honey-boxes and feed-drawers.

Curing Hams and Beef

It is always desirable to cure meat so that when wanted for use, it will be neither too salt nor too fresh, and yet possess all its natural sweetness. If the following receipt is used in preparing a pickle to cure hams, beef, mutton and venison, it will be just what is wanted.

We have cured tons of meat and always found it right. For every twenty pounds of meat, take 2 oz. sal nitre, $\frac{1}{2}$ pint molasses and $\frac{1}{2}$ pint coarse salt, add a quantity of pure water sufficient to cover the meat when loosely packed in barrels. Let the ingredients be thoroughly dissolved in the water: the whole permitted to stand long enough for all impurities to settle. Carefully turn off the brine, throw away the sediment; having packed the meat turn the brine upon it, place a weight on it to prevent its floating. About every five or six days overhaul and repack, that every part of the meat may come in contact with the brine. In from four to six weeks, according to size of hams, it will be sufficiently cured for smoking, which may be done at any time convenient, for with such brine it will not get too salt. After smoking, it may be replaced in the brine, and taken out for use as wanted. We have frequently kept hams through the heat of summer in a stone smoke-house, with holes in the roof for ventilation, secure from flies. Hams should always be kept in a cool place before and after smoking. N.

Produce of a single Kernel of Wheat.

MR. EDITOR:—In the September *Farmer* I noticed that Mr. Allen, of Paris, Kent Co., sends you an instance of a "remarkable yield of wheat," and he says if any one can beat it he would like to hear from them.

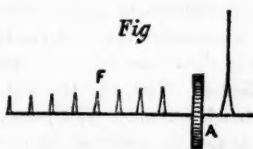
Well, I will not say I can beat it, but will just mention what has been done on my farm. Two years ago last harvest, while harvesting, there was found on my farm, a few feet from the edge of the wheat, a single stool of wheat bearing eighty-seven stalks with as many heads, yielding 4611 grains. This stool was examined by a number of the neighbors, and the statement pronounced to be correct. It was first found by F. W. Merritt, a near neighbor, while harvesting his wheat near by. Now Mr. Allen, when you beat that please let us know.

Macon, Oct., 1855.

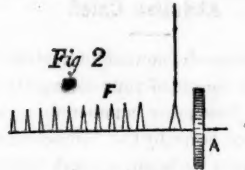
A Word about Reaping Machines.

Is it time those troublesome things, stumps, were removed from many farms where they are allowed to hold undisputed sway, and the track thus cleared for the reaping and mowing machine to supersede the cradle and the scythe here in Michigan; and our farmers ought to be well posted up as to the best kinds in use; for when a man pays \$150 for a farming implement, it ought to be a good one, and answer the desired purpose; and in order for this, if those who have had experience in these things would freely communicate, the desired end would be obtained. It is not always the case that those machines that bear off the palm at a trial of machines, are the best for farmers generally, but the practical working in the hands of farmers with common teams through the season must be the criterion.

In the late trial of machines in France, it appears that out of nine on trial, McCormick's and Manny's received the preference—that McCormick's beat Manny's three minutes in time in cutting an acre of oats, but Manny's received the preference on account of lightness of draft. This is indeed a valuable consideration where a machine is to be drawn by two horses, and no machine for a farmer's own use should require more; but McCormick's machine as now constructed, is not designed for less than four horses if they are to be steadily driven, and then the forward team removes the lateral pressure from the hind one. I am prepared to speak understandingly on this subject, having purchased one of McCormick's machines at Chicago in July last, and used it through reaping and mowing, with only two light horses. While at Chicago I had an opportunity of viewing Manny's and Wright's machines, but never saw any one in operation until I started my own. I was fully sensible there would be a heavy side draft, or lateral pressure in working McCormick's machine, before purchasing it, and in this respect preferred Manny's; but my object was to get a strong and durable machine, and one not liable to get out of order; and, judging from appearances, McCormick's was such a machine, it being the only one having a wrought iron finger beam, and I feared to risk a wooden one, from their liability to warp, split, or the fingers becoming loose. I have found it to work well, and the side draft is not as troublesome as I had supposed. It is singular that the ingenious inventor has never yet remedied this evil, since it can be done so easily. It is occasioned by the finger beam and driving wheel being both on the same side of the line of draft, and the remedy is simply to place the driving wheel on the other side as Manny has done in his machine, thus:

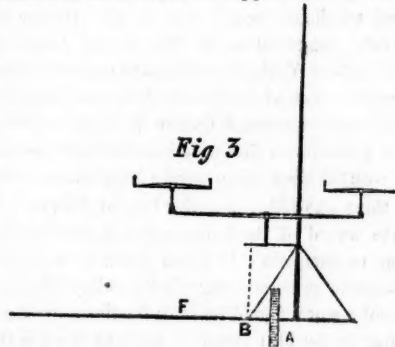


McCORMICK'S.



MANNY'S.

in which A is the driving wheel, F finger beam. For the benefit of those who have already purchased McCormick's machine, I will show a method I have adopted for removing this side draft while working with two horses. The triangle is the frame containing the gearing; A, driving wheel, as before; at B, a bolt runs through the finger beam and frame, on the top of which is an iron brace to support the driver's seat,



and is long enough to receive the link of a common trace chain between the brace and nut, which chain is represented by the dotted line. The bolt hole through the tongue is at the upper angle of the frame, where ordinarily the evener is attached, instead of which, I would have a piece of strong oak, of the same size as the evener, but shorter, bolted to the tongue at one end, with a hook near the other end to which the chain is attached; a strong iron clasp, passing round between the tongue and chain, and bolted through, which may be moved to the right or left, until the draft is balanced; the forward end of the clasp being open to receive the evener, and bolted through. It will be seen that by moving the clasp to the left, the draft upon the chain and fingerbeam will be increased, and thus prevent the tongue from pressing against the near horse.

With regard to raking all the grain, it is indeed straining business, as stated by an observer in France, to a new beginner, as I myself can testify from *sore* experience; but in this, as in all other business, "practice makes perfect," and after the first day I could rake off much easier than swing the cradle. I regard good reapers and mowers as among the greatest of labor-saving machines for farmer's use; but I am looking forward to a time when they will be made much lighter and more convenient, and consequently at a reduced price, when every extensive farmer will find it for his interest to own one.

Yours respectfully, J. C. ROGERS.

Grand Rapids, Oct., 1855.

Abdallah Chief.

Editor Farmer:—Somewhat interested in "Abdallah Chief" I ask the use of your columns to notice an article in your November number in regard to the treatment of that horse by the committee at the late State Fair. From its tenor, being derogatory to the committee rather than to the horse, I should have inclined to let it pass as well calculated to do him good. Besides were it of a different tenor, being an anonymous communication it would not be entitled to notice were it not accompanied by an editorial, which seems to make reply proper.

In regard to the conduct of the committee in ignoring the horse entirely, we presume that if Abdallah Chief was not entitled to a first premium, his owners preferred he should receive none at all. Having so successfully competed at the Fair of the American Institute in New York city in '52, as to receive a third premium in a class of nine or ten of the best horses in the world—the renowned Cassius M. Clay, receiving the first premium on that occasion—we have no fault to find with the *discrimination* of a Michigan committee of three who failed to notice him at the late fair.

Of the award of the first premium it does not become us to complain. If it was given as is alleged on account of preference for what is called "Morgan" stock, not a word should be said; for there are many who cling to the idea that it is the best stock in the land—notwithstanding it is undersized, seldom attains more than good road speed, and has not the bottom, whatever its docility, of the Messenger breed. The chesnut which took the premium was one of the most beautiful specimens of his class we ever saw; but we doubt if he would suggest the idea of a progenitor of a race of large, powerful, swift, enduring horses, fit for *all work*.

The committee may have been honest in the discharge of duties. The writer would not impugn their motives. But it would have been more satisfactory to the public to report their reasons. Let us know by what standard they awarded "Jackson" a diploma and ignored Abdallah? By what rules were they governed? Was Abdallah excelled in figure, form, size, symmetry, motion, action, power or pedigree according to acknowledged standards? We deny it. Then the committee had no standard at all, or what is worse adopted some crude one of their own for the occasion. Was speed or endurance made any test? No. It is true a little ring was made over the six feet ridges of the ancient corn-field enclosed in the fair ground where no horse of *any reach of step* could show to advantage. A fair trial however over a proper course was sought, and would have been had but the storm prevented. The proposed trial was advertised for the day after the fair, and the committee understanding this, did not require the exhibition of speed in that miserable ring to be taken as a test.

No one so considered it—certainly not Abdallah's owners, or he would not have been suffered to enter it. It was intended for mere display of movement. But for a trial on a fit track Abdallah was *then ready is ready now*; and *will be ready* at all times until his spring season commences, to trot any horse of his class owned in the state, or against time, over the Detroit course. The owners of Jackson who is so sneeringly introduced in the article, know full well that they can have a trial with him any day. Let that committee then give some of the reasons which made up their judgment. We are entitled to them and demand them. If they cannot "render a reason" for their action, they are unworthy of the place they filled.

It has been asserted, Mr. Editor, that the committee must have been prejudiced against the horse by the systematic efforts of interested parties. Be this as it may, it is well known that so fierce a spirit of detraction was displayed about the Judge's stand as to justify the belief of an organized and predetermined plan to injure him. Why this detraction, this rage in advance, if the horse had no merit? Did they so greatly *fear* him? Why fear a horse "unworthy of even a passing notice of" this *discriminating* "committee!" (It appears that the horse did however attract the attention of the editor of the Ohio *Farmer*.)

Is it not strange that Abdallah should have elicited so much feeling in advance if he had no merit? "Verily" where there is so much smoke there must be some fire.

But there were some other doings that look queer, to say the least. Why was it that the best brood mare and suckling colt on the ground—"Lady Washington" and foal by Abdallah Chief—"were also overlooked? Was it from a pre-determination that nothing connected with Abdallah or his owners should be recognized? Why was it that that most remarkable bay trotting mare, which showed more speed than any animal on the ground *was capable of showing*, should also have escaped notice? Was it from the same cause? Did we not know that these two mares and colts were so incomparably ahead of their competitors as to be the subject of universal remark, leaving but one impression upon the minds of impartial bystanders, did we not know that among the latter there was no pretence of any rivalry even, the fact would not be referred to here. Honest judgment and award on fair competition are entitled to respect and acquiescence, however anxious owners may be disappointed. But is it not remarkable that there should be such a great difference of opinion between the lookers-on and the committee in such a *number of instances*, and that in all of those instances, *Abdallah Chief* should be affected. Now, lest the writer should be accused of blind partiality, disappointment, &c, he will here state that the owner of the mares and colt referred to, has expressed a willingness to leave the

decision of their respective merits as compared with the successful competitors at the late fair, to three disinterested persons, to be chosen in the usual way, on condition that the unsuccessful animals shall be donated to the State farm at Lansing for the benefit of the Agricultural College.

Really, Mr. Editor, when such gross cases of injustice to competitors are suffered to occur and go unnoticed, it is time for the real friends of those interests which the State Agricultural Society is instituted to promote, to look about them and see if some organic defect exists in the institution itself, or whether through the weakness, incompetency or corruption of its officers, trickery, "figuring" as it is *figuratively* called, and charlatanism, are sometimes allowed to trample over fair dealings; whether diplomas shall be surreptitiously filched out of the hands of honest emulation and open competition at our State fairs. Why, sir, if every one of the animals referred to were the veriest scrubs, still the well authenticated pedigree which each bore, should have entitled it to some consideration. Is this the kind of encouragement your fairs are designed to lend, sir?

In conclusion, the owners of Abdallah Chief might well rest content with the editorial notice accompanying the article signed "Phil-horse-ophy." They purchased him at a large price, it is true, not for racing, not for speculation, but believing in his value for the improvement of their own stock, and of that of the State. If he is an "unworthy animal" none so much interested as themselves in finding out the fact. It is not the "legitimate business" of those gentlemen to "attempt to impose" such a horse "on the community." Their "law, lumbering and fishing" is sufficiently respectable and profitable to enable them to leave professional horse jockeying to such as find a congenial pleasure in detracting their betters whether among horses or men. Ever ready for competition, examine and try,
ABDALLAH CHIEF.

CARROTS.—A correspondent writes to know how many bushels of carrots are equal to one bushel of corn for feed. Of the yellow carrot, three bushels are allowed to be equal to one of corn; the white being less nutritious would require about four.

A very warm cellar is not necessary to keep carrots through the winter; they will stand a good degree of cold without injury, and make valuable winter feed.

RYE FOR PASTURE.—In answer to an inquiry, we would reply, that rye, to make good spring pasture, should be sown early in the fall, and sown thick. If it is not well grown enough to turn cattle on as soon as the snow goes off, give it a few days to get a start; it will grow rapidly, but working oxen would not do well on such feed alone; they should have grain of some kind to keep them strong and in good heart.

HORTICULTURAL DEPARTMENT

J. C. HOLMES, EDITOR.

Plums.

I enclose to you a few notes on plums, most of which have been hitherto either wholly unknown in this vicinity, or cultivated under other names.

The past summer has been too wet, and much of it too cool, to fully develop the flavor of plums, peaches and pears, and judging by the past, the premature denuding of our plum trees in August and September may result from the same cause. Our trees the present season dropped their foliage so early as to occasion serious deterioration of the size and quality of the fruit, and on many trees the terminal buds are again putting forth leaves. The rot has also been more than usually prevalent, affecting the entire crop of some varieties.

Cherry plum has been loaded with blossoms every spring for the last six or seven years, but has never set half a dozen fruits. Tree very healthy and the only one on my list that retains its foliage till autumn.

Imperial Gage bears well; fruit beautiful and excellent, much inclined to rot on the tree.

Green Gage is a name applied to several varieties of very good plums in this region, but my own trees are the only *true ones* with which I am acquainted. Here as elsewhere, it is unrivaled in quality, tree of slow growth, great bearers and retain their foliage better than most varieties.

Red Gage, rather small, beautiful, enormous bearer, so much so as sometimes to injure the quality of the fruit.

Lombard or Bleeker's scarlet, large and beautiful, a little coarse, flavor good, great and constant bearer, profitable.

Yellow Gage cannot be recommended except for light soil and with high cultivation,—shall regraft them.

Columbia is very large, beautiful and excellent, tree tender, so far a thin bearer, I fear it will not pay.

Trees received as Orange plum have borne for several years, but the curculio and the rot combined have always taken nearly the whole crop. The fruits are frequently double. Its correctness is doubtful.

Washington, and Huling's Superb are much alike in size and appearance, but the latter is of finer texture and flavor, both very large.

Coe's Golden Drop has ripened well with me, (although said to be uncertain in northern Ohio,) and is valuable for its size, beauty and lateness.

Ickworth's Imperatrice, medium in size, passable in quality, good bearer, never rots, very late.

Reine Claude de Bavay, a new French variety, quite firm, large, free grower, nearly equal to Green Gage in quality, one of the latest, very valuable.

Royal Hative, or Early Royal, described by Downing and Thomas as very early, rich, and fine; has shown fruit for three years but has as yet produced nothing either early or good; it is very liable to drop its leaves early.

Jefferson has produced a few fruits, but none have as yet escaped the curculio.

Several other varieties may be expected to fruit another season, when if circumstances are favorable, I shall endeavor to note more accurately the times of ripening and other peculiarities.

Peaches, this year, are an entire failure hereabouts, with rare exceptions, and a large percentage of the trees are dead from the effect of the past severe winter. Mine have escaped with the exception of a severe shortening in, and have made a fine growth during the summer.

Cherries have also felt the effect of the past winter. A few of my oldest trees have been partially or wholly killed. Those in sheltered situations, and with the strongest growth have suffered most; all the injured ones were of the Heart and Bigarreau varieties.

T. T. LYON.

Plymouth, Oct., 1855.

Cultivating and Keeping Apples.

Apples have already become one of the staples of Michigan. Thousands of barrels have been sent over the Central and Southern roads, destined to the Western States and Territories. The demand is fully equal to the supply, and will continue so for years. The cultivation of such varieties as are most in demand, or such as afford the best profit, should command the attention of all engaged in growing fruit. We have always advocated the policy of growing those which will be fit for the table from January to June, as being most profitable. There are always wind-falls enough for fall cooking apples, and very few compared with the whole number of trees in an orchard need be autumn fruit; what few there are should be the best varieties. We have attended a number of fairs the present season, and have spent some time in examining the fruit, and are gratified to observe less attention to cultivating large coarse apples of second and third rate kinds, and more pains taken to grow many of the medium sized varieties of the best sorts. From what we have noticed we judge that a large portion of the fruit sent west will not keep long, owing to its being shaken from the trees and carted over rough roads. Therefore, we venture to predict that those who have been careful to gather their apples and keep them from being bruised, will realize from thirty-three to fifty per cent. more than those taking less pains, and forcing into market their late keepers in bad condition.

Apples should always be plucked by hand, and very carefully transported upon springs to their place of destination. All that drop to the ground while gathering

should be kept by themselves and sold for early use, or dried. All apples to keep well, should be kept in a cool place until winter sets in, by that time they have done sweating. They ought to be looked over, laying aside all showing any signs of decay, replaced carefully in barrels or boxes and boards placed over the barrels. It is not necessary that apples should be kept air tight, but they always should be kept at a low temperature, say not above 35°, and if possible air freely admitted to the cellar. Sour apples will bear several degrees of frost without injury, but it is not advisable to run any risk; always keep them cool and examine them often, taking away all decayed ones, and an extra profit may be realized from them, besides the satisfaction of having a good sound dessert apple for the table. From what we see and hear, we think the apple worm has done less mischief than formerly, and we hope to hear from friend Cook, of Jackson, and others who have been experimenting with the design of preventing the ravages of this destructive insect. N.

Dahlias.

Dahlias should be carefully dug up after cutting off the stalk about four inches above the ground, a tally should be firmly attached by a wire to designate the variety; permit the roots to dry a little and carefully place them in a dry cool cellar—not a dry warm one, neither a warm moist one, for the roots if dried too much will not sprout, and if kept too warm, and moist, will grow, or rot, or both; they being a perennial tuberous rooted plant, varieties are continued only by dividing the roots in the spring, *always* being careful to have a bud attached to each tuber. New varieties are produced from seed but generally the greater part of the seedlings are single flowers and a very small portion, if double, are worthy of cultivation. N.

Hardy Bulbs.

Bulbous flowering roots that have been kept dry during the summer, if not now done, should be planted out that they may be prepared for flowering early in the spring. Let them be dug deep, made rich if not already so; the bulbs should be placed from one to four inches deep and covered with garden mould. Peonies and other hardy tuberous rooted plants, if to be increased, had better be attended to in the fall. Careful, cut off the toes or divide the roots, and plant where you wish them to stand. N.

MICH. NURSERY AND FRUIT-GROWERS' ASSOCIATION will hold its annual meeting at Jackson, on the second Tuesday of January next. A full attendance is requested.

Mr. Enos Merrill writes us that he has started a nursery about six miles out of the village of Kalamazoo, where he is paying particular attention to the raising of young trees for the growth of stone fruit.

LADIES' DEPARTMENT.

Evening Contemplations.

I love to pause, when work is done,
And view awhile the setting sun,
And watch the day-light as it fades,
And wait for evening's quiet shades.

And then it is a glorious sight
To see the lovely queen of night,
Arising in the orient sky,
And soaring upward far on high.

Her silver light she gently sheds,
Across her path she treads,
All Nature's hushed in silence sweet,
And pays her homage at her feet.

And then the stars—these lesser lights,
That gleam and radiate the night,
They're kept and guided by the Hand,
Who brought them forth at His command.

Oh God! the wonder is to me,
That at whose Thy creatures see,
One can be found who dares deny,
That there's a God who rules on high.

ANN, OF THE FARM.

Oporto, Aug., 1857.

Eaton County Fair.

The letter of "Katy Wildwood" is too long and too diffuse for publication entire. By making use of words less on the romantic order, her description of the Eaton county fair might have been one of some benefit and interest. It was their first fair, and judging from what we can gather from the scattering remarks in this letter, it was eminently successful and satisfactory. The fruit and vegetables are spoken of as having been superior in size, quality and quantity; and the produce of the dairy, and the domestic manufactures, highly creditable to the farmers' wives and daughters. It has been observed that the progress of improvement in any of the departments of social life is in proportion to the interest which women feel and take in them; and in no vocation engaged in by men have the great majority of women a deeper interest than in agriculture. From evidences in the letter before us, and also from reports of other county societies which have reached us through the newspapers, we gather that a change is taking place in the departments of these exhibitions most especially devoted to the domestic arts. There is more attention given to the manufacture of articles that are really useful, and more good taste shown in the ornamental. This change was quite apparent at the last State Fair, where substantial woolen coverlets and neat white counterpanes graced the lines in place of the gaudy-colored witness of a wicked waste of time and money that depended from them two years ago. More and better specimens of bread, butter and cheese were exhibited than usual, and still there is room for improvement both in quantity and quality. Housekeepers will see these deficiencies when they meet and compare the products of their skill and industry, and seeing them will be the first step towards advancement and reform. The spirit of enterprise in agriculture is working its way rapidly through our state, and penetrating into our northern and newly settled counties, exciting

emulation among housewives as well as among tillers of the soil. Our correspondent says that much determination and enthusiasm were manifested at this first gathering of the Eaton farmers, and that even the little boys caught the spirit, and one of them brought potatoes of his own raising, two of which weighed 5½ pounds. The Vermontville farmers were also on hand with a good show of their fine stock, both of horses and cattle. A snow white yearling Durham is mentioned, whose weight was over one thousand pounds.

The address for the occasion was delivered by the President of the Society, the Rev. Mr. Benedict, of Vermontville, and is highly spoken of as one of sound practical good sense.

We hope when Katy writes again she will know just what she wants to say, and then say it in the plainest and most intelligible manner, without attempting to crowd too many subjects together at once.

APPLE BREAD.—A very light pleasant bread is made in France, by a mixture of apples and flour, in the proportion of one of the former to two of the latter. The usual quantity of yeast is employed as in making common bread, and is beaten with flour and warm pulp of apples after they have been boiled, and the dough is then considered as set; it is then put into a proper vessel, and allowed to rise for eight or twelve hours, and then baked in long loaves. Very little water is requisite; none, generally, if the apples are very fresh.—*Ex.*

NO-MATTERS.—An exchange says that a knowledge of the following delicacy has long been confined to one family; it looks like too good a thing to be so monopolized.

To three teacups of buttermilk add three tablespoonfuls of rich cream, and a small quantity of sugar. Stir in flour until it is of the consistency of paste for dough-nuts. Roll out size of a large breakfast plate, and fry in lard to a rich, brown color.

As each cake comes from the fire, cover with apple sauce made from tart apples sweetened to taste, and spice with nutmeg or cinnamon, and continue the process till the plate is well heaped.

Mr. J. Brown, of Battle Creek, Chairman of the committee on Home Manufactures at the late State fair, informs us that the premium awarded to Mrs. J. Starkweather, of Ypsilanti, for cotton stockings, should read "first" instead of "second." He says, also, that we were in error in stating that no premium was awarded to woolen yarn. We examined the report very carefully and are pretty sure we should have found it if it had been on the book. However, the correction shall be made as soon as we can learn who won the three dollars.

TO TEA DRINKERS.—It is said that a French chemist has discovered that by grinding tea in the same manner as coffee, before infusion, the quantity of the exhilarating fluid obtained is nearly or quite doubled.

MICHIGAN FARMER.

ROBERT F. JOHNSTONE, EDITOR.

DETROIT, DECEMBER, 1855.

The Close of Volume Thirteen.

With this number of the *Farmer*, we close the thirteenth volume. To us it has been a year of severe trial, for it has been felt as an unprofitable one by a large portion of the farming interest, and what touches them, we feel most sensibly. A large, a very large proportion of our subscribers have not been prompt in remitting the amount due us, and instead of reducing the amount due us below that of last year, it has largely increased.

We feel that it is time to put a stop to this, and hence forth, it shall be our endeavor to have all subscription paid in advance, or at least within two or three months of the 1st of January. This dilatoriness on the part of subscribers has cramped us in all our efforts to render the volume as good a one as it was our ambition to make it. Workmen, engravers, and paper-makers must be paid, or they cannot work, yet many of those who take the *Farmer*, do not seem to think it of any importance whether they do or not pay for it. There are but few of our subscribers who cannot afford a dollar for the *Farmer* at any time; yet for want of that encouragement, which is our just due, we are compelled to deprive them of many embellishments and improvements, which we would feel a just pride in laying before them. We hope for better things from them in future.

The New Volume.

We have made arrangements for rendering the volume of the *Farmer* for 1856, one which very farmer and agriculturist in the State should take pleasure in doing something towards supporting. There was never a time when there was such a number of real practical farmers interested in communicating the results of their experience to one another, as there is at present gathered round the *Michigan Farmer*. Connected with us in the editorial management, or as correspondents, we have all the writers who have any reputation as agriculturists. Let us hope that its friends take some pains in urging its claims upon those who do not take it, and thus we shall be enabled to commence this year with the hope of realizing what the work costs us.

To those in arrears for their subscription, we would say that we hope they will settle, either with our local agents, or ourselves by letter, immediately. They can do so now.

All returned numbers should have the post-office marked upon them from which they are sent back.

*We wish it distinctly understood, that we shall transmit the January number of the *Farmer* to all who have not ordered their subscription stopped with the end of the year. This has been the usual custom: and all who wish to discontinue, had better reply immediately. Let them recollect that they can have the advantage of obtaining it at club prices, if the payment is made before the first of March next. After that time the price will be one dollar per annum, and if not paid till the close of the year \$1.25. Postmasters will confer a favor by advising us of all numbers not taken out of their office at an early day.*

Meeting of the Executive Committee of Mich. State Agricultural Society.

The executive committee of the State Agricultural Society will hold its annual session at the society's rooms in Detroit, 130 Jefferson avenue, commencing December 17th. At this meeting, the whole business and proceedings of the society for the coming year are discussed and planned, and it is therefore of importance that all sections of the state should be represented. Every county should have at least one representative. During the past year we have seen complaints in some of the newspapers, that in the distribution of the honors or the responsibilities, their sections were neglected. The fault, if any, lay not with the state society, but should have been charged to the fact that when the executive committee met, there was no one present to aid it or direct its members in their action, so far as that locality was concerned. At this meeting, the location of the fair, the list of premiums to be offered for 1856, the appointment of judges, and much other important business will be considered and decided upon. It is the desire of the Secretary, that we should call the attention of all who are interested in this meeting, to the time when it will be held; and we accordingly give it all the publicity in our power.

ABDALLAH CHIEF.—In the present number, it will be seen that there is a reply to the communication published in the November number relating to the horse Abdallah Chief. From this communication it will be seen that much blame is attached to the action of the committee who had the duty of judging of the merits of horses for all work which were entered for competition. What is said in the present number about not only ignoring Abdallah Chief himself, but also neglecting to notice the mares referred to by the writer is distinctly true; and the fact seems to indicate that the committee was not composed of the right material to do the work laid out for them. We do not doubt their perfect honesty of purpose; but we doubt whether they had the experience or the calm independence of opinion, and energy of action which their position required. As we have said in

former numbers, our columns are open within reasonable limits for the discussion of this subject; believing it to be of the utmost importance to the character of the State Society that it should be shown and proved that its awards have not been made by a wilful partiality, or that its judges were influenced improperly. At the same time if an error has occurred, or a wrong been done, either through neglect or incompetency, the only way to remedy it is, to prove first that there has been a wrong done, and then to endeavor to prevent its recurrence, by a thorough examination and understanding of the case.

The friends of Abdallah Chief claim that a wrong has been done them. That according to the usual and well known standards by which the merits of horses are measured, certain animals which they exhibited were entitled to the first premium. But that such award was not made, and that the decision of the judges was warped by prejudice. To prove that they are right, and as a test of their sincerity, it will be seen that an offer is made by the respondent in this number to test the merits of the animals he refers to under penalty of loss. For the sincerity of that offer we are authorized to vouch. The writer suggests that the committee should publish an account of their standard by which they made up their decision. This is not an improper demand, and should be answered fully. When such a demand is made, it is right enough to put on record the principles on which a decision or a judgment is based, that it may serve as a guide by which future competitors may judge whether an animal has any chance to be first rate in Michigan that is acknowledged to be superior in other localities. If the criterion for horses, or for any other stock, differs in this state, from that adopted in other states, the sooner it is made known the better.

At the county fair of St. Joseph county, H. T. Steele Esq., of Constantine delivered the address, which we find published in the Constantine *Mercury*. It differs from many of the addresses made at the county fairs, in the fact that it is characterized by sound views of the present condition and wants of the farmers, of their gross errors, and the great advantages they possess. It is highly creditable to the author and to the society. We quote the following passage from it as serving to show how practical and yet how judicious were its teachings: "Keep up with the progress of the age, by availing yourself of such light as may be cast upon the various branches of the business, deduced from reason and philosophy, and the experience and observation of others, without each being made a victim of the same blunders to which all are alike exposed. Let the agricultural periodicals be regularly and thoroughly consulted. Some hints or suggestions will invariably be found, which will prove of sterling value if acted upon, in the prosecution of your farming operations. He who will not avail himself

of such resources, so cheaply furnished, can hardly be considered a sane and Christian man. And he who is not provided with the "*Michigan Farmer*" or some similar periodical which inculcates lessons in agriculture, can scarcely be supposed to be the owner of a Bible."

Keeping Vegetables.

Beets, carrots, parsnips, turnips, and most other roots, may be kept fresh and tender through the winter, by the following process: either in boxes, bins, or some convenient part of the cellar, place a layer of roots, cover the same with sand or dirt sufficient to fill all the crevices, say an inch deep over the layer of roots; then place another layer, covering with dirt as before, and so alternately until all you wish to keep are snugly packed. The cellar should not be warmer than a temperature of 35 degrees. Roots prepared as above, will generally be fresh and good, till late in the spring, or may be used at any time during the winter. N.

THE COUNTRY PRESS.—We are under many obligations to the country press for their kind notices of the "*Farmer*" from month to month during the past year. These encouraging words are all the more valuable that they are entirely unsolicited on our part, and we take this opportunity to thank all editors and publishers, and especially those of our own state, who by these friendly courtesies, have aided in bringing our work before the public, and thus shown that our effort to benefit the Farmers of Michigan by increasing their stock of agricultural knowledge have been appreciated.

We call attention to the advertisement of Mr. Edward's Leicester Bucks this month again for the purpose of correcting the error made in the same in our last issue. It should have read "Thomas Edwards" instead of "James."

MORE HELP IN THE FIELD.—Two new agricultural papers have been recently added to our list of exchanges:—*The Homestead*, published at Hartford, Conn., by Andrew Stark, and edited by Mr. Clift, T. S. Gold, and H. A. Dyer; and the *Western Agriculturist*, at Pittsburgh, Penn., by David Ramaly, with J. S. Newton as horticultural editor. Both are quarto weeklies, at \$2 per year, well printed and edited, and we extend to them the *Farmer's* right hand of welcome.

A sufferer wants some of our correspondents to inform him what he is to do with a new neighbor who is too lazy or shiftless to make his fence or keep it in repair, so that the cattle may not get at the lazy man's crops. The sufferer says it is not pleasant to know that his cattle and hogs are in the middle of his neighbor's corn, even though there may be no fence to keep them out.

All farm implements not in use at this season of the year, should be taken from the fence corners, lanes and roadsides, and safely housed from winter storms. A little attention to these things now, will save dollars of expense the coming spring.

New School Books.

A. S. Barnes & Co., of New York, have recently published a new Geographical Series, embracing Montiel's First Lessons in Geography, Youth's Manual of Geography combined with History and Astronomy, also by Montiel; and McNally's System of Geography for Schools, Academies and Seminaries. These books follow each other in regular gradation, from the simplest introductory lessons for children, to the more complicated and perfect system for advanced classes.

They have been prepared by men who have had long experience in teaching, and were well acquainted with the difficulties under which both teachers and student labored for want of text-books adapted to the capacity of different ages. These works seem admirably designed to supply former deficiencies, and are being rapidly introduced into the Ward and Union Schools of all the Eastern Cities. They are handsomely illustrated with engravings, maps, charts and useful tables and statistics.

Kerr, Morley & Co., of this city have the above works for sale.

HISTORY OF ALL NATIONS from the earliest period to the present time. By S. G. Goodrich, published by Miller, Orton & Milligan, Auburn, N. Y.

The name of an author so widely known, and so justly popular as Mr. Goodrich, is a sufficient guarantee for the merits of the book to which it is appended. The above splendid new work, the fruit of years of labor, is a most complete, condensed historic record of all ages and nations up to the present time. The style of "Peter Parley" always graphic, never tedious, is familiar and attractive to the young, and to them especially this work will be of great value as making the study of History rather a pleasure than a task; while as a book of reference for all, it can scarcely be equalled. It is a beautifully printed and elegantly bound work, containing upwards of 1200 pages, and is illustrated by 70 maps and 700 engravings. Township libraries should secure copies, and we commend it to all parents as one of the most instructive and entertaining works they can put into the hands of their children.

THE ILLUSTRATED ANNUAL REGISTER OF RURAL AFFAIRS, and Cultivator Almanac for 1856. By J. J. Thomas published by Luther Tucker & Son, 397 Broadway, Albany, for sale by Elwood & Co., Detroit.

Elwood & Co. have presented us with a copy of this beautiful Register and Almanac for the coming year. Besides the calendar and the usual notes and astronomical calculations, it contains a great amount of reading matter on Rural Architecture, horticulture, floriculture and domestic economy; and is embellished with one hundred and fifty engravings of fruit, flowers, country dwellings, portraits of animals, and farm implements. It is handsomely printed and contains in all nearly 300 pages.

Price 25 cents—\$2 per dozen,

TWICE MARRIED; a story of Connecticut life. This characteristic and rather amusing story of life in one of the quiet country towns of Yankee land, was first published in chapters running through several numbers of Putnam's Monthly. The publishers considering it worthy of a more extensive circulation, have given it to the public in a volume of nearly 300 neatly printed pages. It is for sale by S. D. Elwood & Co., Detroit.

THE RURAL ANNUAL AND HORTICULTURAL DIRECTORY.

—We have received from the publishers a neat little Manual bearing the above title. It contains a great variety of information and many useful hints on preparing the ground for orchards and fruit gardens, planting, pruning, &c., with lists of fruits recommended by the American Pomological Society, and State Societies; also directions for making and planting lawns and flower gardens; with catalogues of Nurserymen in the United States and Canada, and the whole illustrated with 60 engravings.

It is a valuable hand book for horticulturists.

Published by James Vick, jr., Rochester, N. Y.

THE PENINSULAR JOURNAL OF MEDICINE AND THE COLLATERAL SCIENCES.—Among other interesting original papers in the table of contents of this valuable Monthly for November, will be found the proceedings of the Detroit Medical Society. Remarks on the treatment of Bilious Remittent Fevers, Delirium Tremens occasioned by tobacco, &c., &c. Besides original communications, there is a variety of selected matter. The Journal is edited by Zina Pitcher, M. D., assisted by A. B. Palmer, Wm. Brodie, and E. P. Christian. Published in Detroit, at \$2 per annum in advance.

The Review of the weather for September was omitted in the last number. It will be found in this.

Markets.

There has been a good deal of steadiness in the Flour and Wheat markets for the past month. Prices have been maintained with a disposition on the part of holders to ask higher rates on the new from Europe. The Canada wheat arrived at Halfax on the 2^d, gave firmness to the market. Good brands of Flour now range from \$7 (2½) to \$8 per bbl. and owing to orders being now filled in this city on both French and British account, all that comes forward is readily taken. Wheat is selling at from \$1.40 to \$1.50 per bushel. Receipts are larger now by way of the Railroad from the west than they have been previously. Corn is selling at 80 cents for old and 75 cents for new. Oats are worth 37½ cents per bushel. Hogs have not yet begun to come forward in any quantity. Good dressed carcasses sell at \$6.50 to \$7 per 100 lbs. Meats pork is worth \$1 per cbl. Beef cattle sell at from \$1.40 to \$3 per 100 lbs. on foot, and dressed hquarters sell at \$5 to 5.50. Mutton sheep range from \$2.50 to \$3 per head. Venison now sells at 12½ per lb. Chickens are worth from 37½ to 50 cents per pair. Turkeys are selling at 12½ cents per lb. Eggs at 20 cents per dozen. Butter at 10 to 21 cents per lb for good rolls. Cheese is now selling at 13 to 14 cents. Apples according to quality, range from \$1.50 to \$2.50 per bbl. Potatoes are worth 40 to 50 cents. All sorts of farm produce rules higher, and so is likely to remain so.

PUBLIC AUCTION.

Having leased my farm, and intending to change my business, I will offer at public sale, at my residence near Schoolcraft, Kalamazoo county, on Wednesday the 1st day of December, 1855, the following stock and property to wit:—

Two of my best blood cows—Two yearling bulls—One bull calf—One half-bred calf—One large young draft horse—Two very fine 4 year old horses of a valuable for a splendid travelling team—One 3 year old horse of 4—One 4 year old mare colt, and two 3 year old mare colts—Five prize bred and a pair of pigs—One wheat drill—One faning mill—several plows and cultivators—A few sets of harness and many other articles too tedious to mention.

A reasonable credit will be given and terms of sale made known at the time of sale.

A. Y. MOORE.

Schoolcraft, Nov. 23, 1855.

FOR SALE.

THE "END DU" HAM COWS—FIVE HEIFER CALVES AND ONE BULL CALF—

Stargis, Michigan, Nov. 19th, 1855.

GEO. CARMAN.

2.

Meteorological

REVIEW OF WEATHER FOR SEPTEMBER 1855.

BY L. WOODRUFF, ANN ARBOR.

Thermometer at	7 A. M.	2 P. M.	9 P. M.
Highest temp. in month	72° (1st)	87° (1st)	74° (1st)
Lowest do	40° (25th)	57° (18, 19, 27, 45, 27th)	
Average	59.2	70.8	62.3
Monthly mean	63.1		

MONTHLY VARIATIONS.

Greatest daily mean	77.6° (1st)
Least	49.6° (27th)
Greatest daily range	26.0° (1st)
Least	2.0° (3rd)
Clear days	4
Part Clear	4
Cloudy days	19
Days on which rain fell	11
Total amount of rain	5.265

WINDS.

W., 1 day; N. 3 days; E., 4 days; S., 5 days; S. W., 8 days; N. W., 1 day; N. E., 4 days; S. E., 4 days.

REMARKS

Though the monthly of the thermometer is 2° below that of September '54, yet the weather has been warm, or very mild, throughout and generally very favorable for the crops and business of the season. There has been more than the usual amount of rain and cloudy weather. Thunder was heard on 8 days, and there were high winds 18th and 21st.

The lowest Barometer was 29.910 on the 23th, and the highest 29.400 on the 6th.

The heaviest rains were 1.403 inches on the 12th and 13th, and 1.591 on the 29th and 30th.

Most of the storms of the season were preceded by a considerable depression of the Barometer.

REVIEW OF THE WEATHER FOR OCTOBER 1855.

BY L. WOODRUFF, ANN ARBOR, MICH.

Thermometer at	7 A. M.	2 P. M.	9 P. M.
Highest temp. in month	62° (5th)	71° (10th)	62° (4th)
Lowest	27° (25th)	36° (24th)	29° (25th)
Average	39.7	53.03	44.1
Monthly mean	46.0		

MONTHLY VARIATIONS.

Greatest daily mean	63.3° (4th & 10th)
Least	32° (24th)
Greatest daily range	31.0° (25th)
Least	5° (23d)
Clear days	16
Part Clear	3
Cloudy days	12
Days on which rain fell	13
Total amount of rain	2.163 inches

WINDS.

W., 2 days; N., 5 days; E., none; S., 6 days; S. W., 6 days; N. W., 11 days; N. E., none; S. E., 2 days.

REMARKS.

The monthly mean of temperature is 13° below that of October, 1854, and the weather has been generally cold for the season as well as very changeable. Some snow, the first of the season, fell on the 6th, and about the 24th the weather was unusually cold and stormy, with strong northerly winds. High winds prevailed on eight days, on the evening of the 27th a very strong gale from the S. W. There was lightning on four days, the lightning and thunder on the 29th and 31st were very severe in this vicinity.

The barometer has been rather active in its movements during the month, in every case indicating the approach of storms for some time previous to their occurrence. The maximum of this instrument, 29.430, occurred on the 16th, and the minimum 28.64 on the 27th, the monthly range being .79 in.

The first killing frost of the season occurred on the 13th, some days later than usual.

AUSTRALIAN, Tuscan, and Blue Stem Seed Wheat, from 2 shillings to 24 shillings per bushel.

aug 21

D. O., & W. S. PENFIELD.

THREE THOROUGH-BRED SHORTHORN BULLS.

FOR SALE.—The subscriber offers for sale, at reasonable prices, three thorough-bred Shorthorn Bulls, to wit:

1. LAMARTINE, No. 621, American Herd Book, red and white, or more properly a roan; bred by Samuel Cook, E. q.; calved Dec. 29, 1848; got by Sultan, 105, out of Kate Kearney, vol. 1, page 189. A. H. B., by Philadelphia, 4838; Florida, by Young Bolivar, 3185; Penn. vivants by B. H. 80; by imported Gloucester, 1074; by imported Champion, 864; by Young Comet, 157. He is a large and stylish animal, and a sire and fine breeder. Price \$150.

2. OY. MORROW, No. 53 Am. H. Book, red and white; bred by L. F. Allen, Esq., Black Rock, N. Y.; calved April 5, 1854; got by Duke of Exeter, 49 (10, 12), out of C. Madison, 9, by Broomdon 287; Blanch Rose by Broomdon's 286; by Barnby 14, (677) by Com. t Halley, 1855; by Durock 4-4; by Island, 4-48; by San Martin, 25 9; by Adam, 717. He is of good size and to me, and will make a large, massive and beautiful animal—a taken the first premium in his class at the Warren County Agricultural Show—Price \$200.

3. ALLEN.—No. 206, Am. H. Book, red and white, calved Nov. 18th, 1854; got by Duke of Exeter, 449 (10, 152) out of R. Anna, by Broomdon, 287; by Broomdon, 286; by white Comet, 184; by Com. t Halley, 1855; by Durock, 3668; by Mlanda, 5488; by San Martin, 2599. Mrs. Kottie by Adam, 717. He is a promising calf, and bred for to make an excellent feeder. Price \$100.

These cattle may be seen on my farm, adjoining Lebanon Ohio. dec. 21 K. G. C. WIN.

EMERY'S AGRICULTURAL WAREHOUSE AND SEED STORE:

45 Franklin St. - Chicago, Ill.

THE subscriber has opened a Depot at the above place for the sale of a general assortment of Farm Implements and Machinery, field and garden seeds, &c., &c.

Having had a long experience in the trade, in connection with the Albany Agricultural Works, Albany, N. Y., and a very general acquaintance with the demands in the West, he feels satisfied he can meet and supply the wants of the farmer and gardener to their entire satisfaction. No pains shall be spared to furnish the very best to be had seeds; he will give particular attention to the furnishing of the celebrated Emery's Patent Horse Powers, Threshers &c., and by this arrangement the public will not have to be at the risk and delay of sending east for their goods, as I shall keep a full supply constantly on hand.

The public are respectfully solicited to call and see my assortment.

Catalogues furnished on application. HENRY D. EMERY. Dec. 1 1855. (2)

AGENTS WANTED, MAKE MONEY WHILE YOU CAN.

THE subscriber desires to procure the undivided time of an Agent in every county of the United States, efficient and capable men to make several dollars per day, without risk or embarrassment of any kind. Full particulars of the nature of the business will be given by addressing the subscriber, and forwarding one Post Office Stamp to repay postage. FUSLEY & CO., Philadelphia, Pa. (dec. 11, 55) 520, North 6th St.

SEYMOUR & MORGAN'S PATENT PREMIUM NEW YORK SELF-RAKING REAPER with Mower attached, for the Harvest of 1856.

THE Reaper is warranted to work well if properly managed, or to no sale. The Mower attached is warranted to work as well as any other Mower that is attached to a Reaper, if properly managed, or to no sale.

Price of Reaper at shop, with extra, \$145.00
Price of Mower Attachment, 30.00
Ketchum's Mower with extra, 115.00

SEYMOUR, MORGAN & CO.
By WILLARD FISHER, General Agent.
P. O. address, Ypsilanti, Mich. dec. 21.

A CHANCE TO MAKE MONEY! PROFITABLE AND HONORABLE EMPLOYMENT.

THE subscriber is desirous of having an agent in each county and town of the Union. A capital of from \$5 to \$10 only will be required, and anything like an efficient, energetic man can make from three to five dollars per day; some of the Agents are realizing twice that sum. Every information will be given by a dressing, with a stamp to pay return letter.

W. M. A. KINSLEY, Box 1223, Philadelphia Post Office.

dec. 21

AYER'S CHERRY PECTORAL.

For the rapid cure of Coughs, Colds, Hoarseness, Bronchitis, Whooping-Cough, Asthma and Consumption is universally known as the best remedy ever yet discovered for every variety of Pulmonary disease. So wide is the field of its usefulness, and so numerous the cases of its cures, that almost every section of the country abounds in persons publicly known who have been restored from alarming and even desperate diseases of the lungs by its use. When once tried its superiority over every other medicine of its kind is too apparent to escape observation, and where its virtues are known the public no longer hesitate what antidote to employ for the distressing and dangerous affections of the pulmonary organs which are incident to our climate. By its timely use many, nay almost all attacks of disease upon the Lungs or throat, are arrested and thus are saved many thousands every year from a premature grave. No family should be without it, and those who neglect to provide themselves with a remedy which wards off this dangerous class of diseases will have cause to deplore it when it is too late. Proof of the surprising efficacy of the Cherry Pectoral need not be given to this American people—they have living proofs in every neighborhood. But those who wish to read the statements of those whose whole health has been restored and whose lives have been saved by its use, will find them in my American Almanac which the agent below named has to furnish gratis to every one.

AYER'S PILLS

FOR ALL THE PURPOSES

OF

Family Use.

PROF. H. A. S., late Chemist, of Massachusetts, says they are the best of all PILLS, and annexed are the men who certify, that Doc. A. S. knows, viz:
 LEWIS SHAW, Chief Justice Supreme Court of Mass.
 EMORY WASHBURN, Governor of Mass.
 W. C. PLUNKETT, Lieut. Gov. of Mass.
 EDWARD EVERETT, Ex-ec., of State, and Senator of the U. S.
 ROBERT C. WINTHROP, Ex-Speaker House of Rep. U. S. A.
 ABBOTT LAWRENCE, Minister Plenipot. to Great Britain.
 JOHN B. FITZPATRICK, Catholic Bishop of Boston.

MEN THAT ARE MEN!!!

Among the diseases this Pill has cured with astonishing rapidity, we may mention

Costiveness, Bilious Complaints, Rheumatism, Dropsy, Heartburn, Headache arising from an upset stomach, Nausea, Indigestion, Morbid action of the Bowels, and Pain arising therefrom, Flatulency, Loss of Appetite, all Ulcerous and Cancerous Diseases, which require an evocant Medicine Scrofula, or King's Evil. They also by purifying the blood and stimulating the System cure many Complaints which it would not be supposed they could reach; such as Deafness, Partial Blindness, Neuralgia and Nervous Irritability, Derangements of the Liver and Kidneys, Gout and other kinds of Complaints, arising from a low state of the body, or obstructions of its functions.

They are the best Purgative Medicine ever discovered, and you will not need to use them once to know it.

INVALIDS READ AND JUDGE FOR YOURSELVES.

JULES HAUER, Esq., the well known perfumer, of Chestnut street Philadelphia, whose choice products are found at almost every toilet, says:

"I am happy to say of your CATHARTIC PILLS, that I have found them a better family medicine for common use, than any other within my knowledge. Many of my friends have realized marked benefits from them and coincide with me in believing that they possess extraordinary virtues for driving out diseases and curing the sick. They are not only effectual but safe and pleasant to be taken, qualities which must make them valued by the public, when they are known."

The venerable Chancellor WARDLAW, writes from Baltimore, 15th April, 1854:

"DR. J. C. AYER: Sir: I have taken your Pills with great benefit for the listless ease, languor, loss of appetite, and Bilious headache, which has of late years overtaken me in the spring. A few doses of your Pills cured me. I have used Cherry Pectoral many years in my family for coughs and colds with unsparing success. You make your medicines with care, and I feel it a pleasure to commend you for the good you have done and are doing."

The widely known J. S. STEVENS, M. D., of Westworth, N. H., writes:
 "Having used your CATHARTIC PILLS in my practice, I certify from experience that they are an invaluable purgative. In case of disordered functions of the liver, cutting headache, indigestion, costiveness, and the great variety of diseases that follow, they are a sure remedy than any other. In all cases where a purgative remedy is required, I confidently recommend these Pills to the public, as superior to any other I have found. They are sure in their operation, and perfectly safe, qualities that make them an invaluable article for public use. I have for many years known your Cherry Pectoral as the best Cough medicine in the world, and these Pills are in no wise inferior to that admirable preparation for the treatment of diseases."

"Senate Chamber, Ohio, April 5, 1856."

DR. J. C. AYER—Honored Sir: I have made a thorough trial of the CATHARTIC PILLS, left me by your agent and have been cured

by them of the dreadful Rheumatism under which he found it suffering. The first dose relieved me, and a few subsequent doses have entirely removed the disease. I feel in better health now than for many years before, which I attribute entirely to the effects of your CATHARTIC PILLS. Yours with great respect

LUCIOUS B. METCALF.

The above are all from persons who are publicly known where they reside, and who would not make these statements without a thorough conviction that they were true.

PREPARED BY J. C. AYER, Practical and Analytical Chemist, Lowell, Mass., and sold by all respectable Druggists every where. Jyly

THE GREAT ENGLISH REMEDY!

SIR JAMES CLARK'S

CELEBRATED FEMALE PILLS

PROTECTED

BY ROYAL



LETTERS

PATENT.

PREPARED from a prescription of Sir James Clark, M. D., Physician Extraordinary to the Queen. This invaluable Medicine is unfailingly in the cure of all those painful and dangerous diseases incident to the female constitution.

It moderates all excesses, removes all obstructions, and brings on the monthly period with regularity. These Pills should be used two or three weeks previous to confinement; they fortify the constitution, and lessen the suffering during labor, enabling the mother to perform her duties with safety to herself and child.

These Pills should not be taken by females during the first THREE MONTHS of pregnancy, as they are sure to bring on miscarriage, but at any other time they are safe.

In all cases of nervous and spinal affections, pain in the back and limbs, heaviness of fatigue on slight exertion, palpitation of the heart, loss of sleep, hysterical sickness, white, and all the painful diseases occasioned by a disordered system, these Pills will effect a cure when all other means have failed, and although a powerful remedy, do not contain iron, calomel, and mercury, or any other mineral.

Full directions accompanying each package. Price, in the United States and Canada, one dollar.

Sole agents for the United States,

J. C. BALWIN & CO.,
 Rochester, N. Y.

N. B.—\$1.00 enclosed to either of the Agents will ensure a bottle of the Pills by return mail.

Morrison's M. Peck, wholesale and retail agent, 122 Jefferson Avenue, (between) Detroit; and sold by H. S. Mearns, E. C. Torrey, Mon & Purdee, and by druggists generally. [Oct 71]

F. P. MATHER & CO.,
 Importers and Dealers in

CROCKERY,

CHINA, GLASS, BRITANNIA, & SILVER

PLATED WARE,

LAMPS AND LOOKING GLASSES,

TABLE CUTLERY AND FANCY WARE.

No. 221 Jeff. Ave., Kearney's Block, Opposite Firemen's Hall,
DETROIT, MICHIGAN.

September, 1854.

[16m.]

WANTED.

A N active honest Man in each section of the State, to take orders by "SAMPLE" for VELLPAU'S MAGNETIC AGENTS.—A salary of \$800 per year, and a small commission will be paid. "Salary payable Monthly."—For particular address Dr. M. VELLPAU, 42 3/4 Broadway, New York, enclosing stamp to pre-pay answer. Oct 4

LEICESTER BUCKS TO LET.

THE UNDERMIND can spare for the season two of his thorough bred Leicester Bucks, which took the

First Premium

at the late State Fair. He will let them for the use of a limited number of Ewes. Prices will be moderate, and all inquiries promptly answered by mail or otherwise.

Ann Arbor, Oct. 18, 1855.

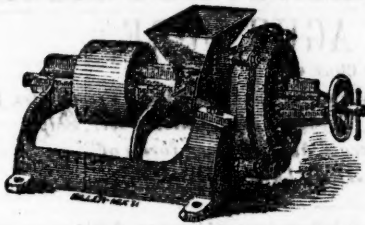
THOS. EDWARDS

S. A. SPERRY.

MANUFACTURER of Carriages, Buggies and Wagons, which are constantly for sale.—Painting and Trimming executed with dispatch.—Also Blacksmithing in all its various branches. All articles of work done to order. Shop on Detroit St., Ann Arbor, Mich'gan. Jett

TO FARMERS, MILLERS & LUMBERMEN.

MARSHALL ADVERTISEMENTS.

**FIFTY-SEVEN PREMIUMS**

At the World's Fair, London, the American Institute, Michigan State Fair, and other Societies, have

BEEN AWARDED TO

CHARLES ROSS' PATENT CONICAL

BURR-STONE MILLS,

As the most perfect Grinding Mills ever offered to the public. Either for Farmers' use by Horse Power, for flouring and re-grinding middlings and other offals in large flouring mills, they excel all other kinds of mills, giving a larger yield and a better flour, having no oscillating motion, and easily kept in good face; and are the only mill well adapted to the unsteady motion of saw-mills, for meal, Graham flour, or feed grinding. They are a great saving in Power and Investment in building mills. The factory prices are \$75, \$100, \$140, \$170, \$200, and \$300, and freight to the place of delivery. For sale by M. J. COOK, near the P. at Office, No. 19 Griswold street, opposite Merchants' Exchange. Also, at P. N. field's, Snows and C. McGill's, Woodward Avenue. To be seen at WALTER CHESTER'S Warehouse, on the Dock, near the A. C. R. R. depot. To be found in operation in this city, at various parts of the State and country. Descriptive circular sent, by a dressing

M. J. COOK, Agent, Detroit, N. B.—An additional Premium and Diploma were awarded on these Mills at the Michigan State Fair of 1855, and at the New York State Fair of 1855: the highest Premium was awarded on Flour manufactured by the Mills, though amid powerful and exciting competition. (j-e-1f)

RAYMOND & COOK

WHOLESALE AND RETAIL

BOOKSELLERS & STATIONERS,

107 JEFFERSON AVENUE, 2d DOOR FROM THE CORNER OF
WOODWARD AVENUE.

At this establishment may always be found a large stock of Religious, School, Theological, Scientific and Miscellaneous Books, Letter and cap paper, Plain and fancy stationery &c. &c. The publications of the American Bible Society, American S. S. Union, Methodist Book Concern, Mass. S. S. Society, and other religious Societies, always on hand and for sale at Catalogue prices.

FRANCIS RAYMOND,
Detroit, July, 1855.

Cm

THOMAS V. COOK.

C. P. WOODRUFF,

DEALER IN

HARDWARE,

IRON,
NAILS,
STOVES,
TIN PLATES,
SHEET IRON,

CARPENTERS'
JOINERS',
COOPERS',
BLACKSMITHS',
TOOLS,

HOUSE TRIMMINGS,

FARMING IMPLEMENTS.

June -

No. 73, Woodward avenue, Detroit.

ROGER'S WHEEL CULTIVATOR.

THE subscribers are still manufacturing ROGER'S PATENT WHEEL CULTIVATOR, and have the exclusive right of making and vending them in the counties of Calhoun, Kalamazoo, Cass, Van Buren and Berrien. This machine has won the highest premium at the State and county Fairs wherever exhibited, and is the BEST WHEEL CULTIVATOR now in use for preparing summer fallows, covering seed, and cultivating corn. All orders filled on short notice. Price at our Foundry, \$30 each.

We also manufacture STEAM ENGINES, MILL IRONS, and agricultural implements in general use. A. ARMS & CO. oct-1f

Kalamazoo, Mich.

Pure Bred Stock For Sale!

FRENCH SHEEP, Spanish Sheep, Durham Cattle, and Suffolk Pigs.
JOHN S. GOE,
Tippecanoe, (4½ miles east of Brownsville,) Fayette County, Pennsylvania.
(jy-6m*)

PURE SUFFOLK PIGS!

AND

Suffolk and Leicestershire Cross Bloods.

THE subscriber offers for sale several pairs of pure Suffolk Pigs, and the cross between Suffolk and Leicestershire, either in pairs or single Pigs. Warranted pure and thorough bred. Price per pair, \$5.00, or \$10 each for Pigs of eight weeks old and upward. All orders promptly attended to.
S. P. WORLEY,
Marshall, Mich., May 25, 1855. (jy-6m)

C. B. TURNER,

MARSHALL, MANUFACTURER OF MICHIGAN.

Butter, Soda and Boston Crackers,

And wholesale dealer in Confectionery, Cider, Vinegar, Dry Groceries, &c.
(oct-1v)

J. T. VERNER, JR.,

—DEALER IN—

SHELF AND HEAVY HARDWARE,**Copper, Tin and Sheet Iron Ware.**

Mechanics' tools and farming implements. Stoves of all kinds.
(oct-1f) MARSHALL, MICHIGAN.

KALAMAZOO ADVERTISEMENTS.**POTTER, GALE & PARSONS,**

Wholesale and Retail

—DEALERS IN—

Heavy and Light Hardware, Agricultural and Horticultural Implements.

Agents for

Ketchum's Mowing Machine.
Manny's Mowing and Reaping Machine.
Seymour and Morgan's Self-Raking Machine.
Fairbanks' Platform and counter scales.
J. M. B. Davidson's Fire King safes.

'55jyf

KALAMAZOO, MICHIGAN

CRITTENDEN & Co**Manufacturers of Carriages, Pleasure Wagons AND SLEIGHS.**

KEEP constantly on hand, Light Buggies, Farmers' Wagons, and Sleighs of the most approved style, made of the best Eastern Timber.

All who are in want of any of the above articles will do well to call and examine before going east, as we are confident that the price will be satisfactory. Terms made easy and work warranted.

Brick Shop, Corner of Purdick and Water street.
Kalamazoo, Mich. Jan. 1855.

feb-1f.

EAGLE FOUNDRY.**W. BURT & SON,**

—MANUFACTURERS OF—

STEAM ENGINES,

Mill Machinery, Iron and Brass Castings, Screws of all kinds and sizes, and repairing done generally.

KALAMAZOO, MICH.

(ap-1f.)

O. H. GREGORY,**BOOKSELLERS AND STATIONERS**

DEALER IN

FANCY ARTICLES, &c.,

At the Old Established Bookstore, Main St.,
KALAMAZOO, MICH.
(jy-1f)

CORNELL & HOGEBOOM,

—MANUFACTURER OF—

CARRIAGES AND BUGGIES.

ALL orders promptly attended to, and all work warranted, for we use none but the best of materials. Shop near Arms & Co.'s Machine Shop, corner of Rose and Eleanor streets.

Kalamazoo, Mich.

66jy17

From one to three years, thirty drops; and under one year, ten to fifteen drops, taken either in or in a little water. Much larger quantities, however, than are necessary to cure disease may be taken without any injury.

ONLY CAUTION.—In certain specified cases pour the contents of one or more bottles of the Cure into shallow vessels, (dialing plates) and place them in sleeping rooms; for the vapor rising from the medicine, and also the air wafted across, or circulated over the dregs of it, after the liquor is evaporated, will counteract and destroy, to a degree commensurate with its exposure, the miasmata or poison contained in the apartment. This mode of exhibiting the Cure would likewise be resorted to, when very young infants are exposed to malarious situations.

The bottles in which this medicine is put up have the words "RHOES' FEVER AND AGUE CURE" blown in the glass, and on the outside wrapper is the name of the medicine. (the copy right of which is secured,) and the signature of the proprietor. These precautions are adopted to prevent counterfeits and imitations.

The reliance for its success is entirely upon its actual merits wherever it is introduced and used. These will be considered sufficient.

Prepared and sold by the proprietor,

JAMES A. RHODES, Providence, R.I.

Extract of a Letter from Prof. Fletcher, who was cured while engaged at Brown University, Providence, R. I.

INDIANAPOLIS, IND., March 1, 1855.

JAMES A. RHODES, Esq.,—Dear Sir:—Yours of the 15th ult. has been received, and I am glad to hear that a medicine so effective is to be introduced into this *aguish* country. I have the greatest confidence in its success, and can reassure you of its happy effect upon me in entirely breaking up the chills, and leaving me strong and healthy.

I like the statement on your wrappers, that you will let the medicine stand on its own merits, and standing thus, I am most sanguine of its success.

I expect to travel over a large portion of our state this Spring, and I shall have abundant opportunity to recommend it verbally. Wherever I go I shall take great pleasure in thus testifying to its merits, and if you will instruct your agent to let me have a few bottles, I will carry them with me to distribute for your benefit.

In haste, I remain, truly yours,
MILES J. FLETCHER.

Had the Ague for Twelve Years.

PROVIDENCE, June 29, 1855.

HAVING been informed of the illness of a poor but worthy woman who has not been free from Fever and Ague a month at a time for the last twelve years, I supplied her gratuitously with Rhodes' Fever and Ague Cure. She took in a four bottles, which completely restored her to health and strength, and as four months has now elapsed, there is no reason to doubt the permanency of the cure.

I am also aware of many other cases in which it has been used and have never known it to fail.

C. A. MASON, Apothecary.

PINE RIVER, Michigan, July 21, 1855.

DR. J. A. RHODES—Dear Sir:—Your Cure for the Fever and Ague has thus far performed wonders. It has not failed in one instance to perform a quick and permanent cure. Some who have been troubled with the distressing disease have been entirely cured by using one bottle of the Cure. Please send us immediately four dozen, as we have but three bottles remaining.

Truly Yours,

LATHROP & McLEAN.

The following letter shows the good effect of "Rhodes' Fever and Ague Cure," and the bad effects of poisonous medicines taken previously, which the lady will probably never get rid of.

SOUTH DUNSM, Mass., Aug. 23, 1856.

DEAR SIR—You wished me to write as to the health of my patient, after taking the medicine you sent, which I now take pleasure in doing.

The patient was my mother. She has lived in Alleghany county, N. Y., for twelve years, and last fall, for the first time, had the Fever and Ague, which she cured in a short time by the use of

Fever and Ague Pills; but last March she came here to live with me, and in May was taken again with it. She has taken the medicine you sent—she took the last some four weeks ago—and she seems to be cured of the disease, and her health is quite good now, but her joints and bones seem to be sore, and pain her some.

The medicine I think is very good, and I could recommend it to ague sufferers, and I would procure it before any other within my knowledge for that disease.

Yours, truly,

CLARKES R. KNOWLTON.

PATERNO, N. C., Aug. 27, 1855.

JAMES A. RHODES—Dear Sir—I take pleasure in assuring you of the complete recovery of my daughter from Fever and Ague, of which she has suffered almost without intermission for over five years past, although I had tried various kinds of medicine and treatment.

At my request Mr. Reddick ordered from you two dozen, and I

can say that it has not only cured my daughter, who took two bottles, but every one who has used it. This part of the country is very swampy and sickly.

With this Mr. Reddick sends you the monies for three dozen more.

Respectfully yours,

JAMES GAYLORD.

LETTER FROM A POSTMASTER.

MAXWELL, Delaware, Co., O., Aug. 19, 1855.

MR. J. A. RHODES—Dear Sir—Your medicine has met with the most favorable success in this neighborhood. I have about five bottles left. I gave it to them at first, "if no cure no pay," although I was not authorized by you to do so; but I took the responsibility on my self. But not a bottle has come back, and as I am almost out of the article, I wish you would forward me one gross of the bottles, if you see proper to do so, and I will be punctual in payment. I enclose fifteen dollars on the medicine I have received, for which please send me a receipt. Ship the cure to me as soon as you can—there never has been as much cholera and fever, since I lived in the State as at present.

Yours &c.

RICHARD MARTIN, P. M.

No. 84 SACK STREET,
South Brooklyn, N. Y.,
Sept. 7, 1855.

DR. J. A. RHODES:

Dear Sir:—The wonderful cure your Fever and Ague medicine has effected on me, compels me to say it has set to work with miraculous effect. I had been suffering for two months, this summer, with the complaint, (which I caught in Pennsylvania last fall) and during my engagement with the "Oceans Bards," I was seldom free from it—it weakened me—destroyed my energy—and confused my mind.

During our Eastern tour I inquired for your medicine but could not get it in New Hampshire, Vermont or Maine. After the Bards disbanded I went home, and was again taken sick—the first bottle cured the chills and fever, although after two doses I was better, feeling a little feverish, through over exertion by walking in the sun—I took another dose, and the second bottle has entirely cured me—I am getting robust and well—and it would be ingratitude in me not to inform you of the efficacy of your valuable medicine.

I am constantly traveling in all parts of the United States in the Concert business, and shall feel much pleased to recommend it to all persons suffering from this distressing complaint.

I sang in Providence, at Howard Hall, in June; but did not then know of your Cure.

If you want a certificate of its efficacy, please write me a line and I will give you one. It may be of some service to you, as I am well known throughout the country; especially in Pennsylvania, Ohio, North Carolina, Illinois, Virginia, &c.

I remain,

Your Grateful Servant.

W. B. HARRISON.

P. S.—I should have said that I took quinine in considerable quantities, which only checked the chills; but your medicine effected a perfect cure.

PROVIDENCE, Ill., Aug. 9, 1855.

DEAR SIR—* * * * * I might as well mention here, that every bottle I have heard of being sold, has given good satisfaction. The agents that I have left medicine with, say that it ranks among the best of patent medicines, and that after its good qualities once become known, that there will be more of it sold than of any other article of medicine in the State.

Respectfully yours,

JOSEPH SMITH.

FEVER AND AGUE MEDICINE.—In another column of to-day's paper will be found an advertisement for "Rhodes' Fever and Ague Cure." We are not in the habit of puffing medicines, but desire to say for the benefit of the afflicted, that Wm. N. Rowe, merchant Shepardsburg, who has it for sale, informs us that he has sold several dozen bottles, and in every case has effected a cure. This proves the medicine to be good, and we take pleasure in bringing it before the notice of the public.—*Odd Fellow, Boonsboro, Md., Sept. 4.*

For sale by Druggists everywhere.

For Sale by HIGSBY & DICKINSON, Detroit.

CARR & HUGHES'

IMPROVED BRAN-DUSTER.

THE SUBSCRIBER has purchased the right of this machine for the counties of Monroe, Hillsdale, Leakee, Wayne, Washtenaw, Jackson, Macomb, Oakland, Livingston and Ingham, and solicits the attention of mill owners to this improvement. It was patented and introduced in 1851, and in every case where it has been used, has given the highest satisfaction, and in no case has been removed from a mill where it has been used. The subscriber is ready to warrant this machine, where used, to increase the yield at least one per cent, and no to lower the grade of the flour in any degree, something which has been sought in vain in all the machines which have preceded this. It is compact, simple in construction, and durable, being made in the most workmanlike and tasty manner, an ornament in any mill, requires but little power and trifling attention. Any one wishing to purchase can be furnished with a machine and right, with ample reference and certification by addressing

A. M. B. DWELL,
Ann Arbor Mich.

REFERENCES:

N. C. Goodale, Deloit, Mich.	P. R. Loomis, Jackson, Mich.
J. Hart, Battle Creek, "	C. Trip, Ann Arbor, "
Gage & Haynes, Chicago, Ill.	R. Allen, " "

[nov 17]

CROSS-CUT SAWING MACHINE, WITH SAW MADE EXPRESSLY,

AND

RAIL-ROAD LOG CARRIAGE 24 FEET LONG,

Arranged to saw any sized Log—Crooked, Knotty or Straight, any length up to 40 Feet. Requiring

Only one Hand to tend it,

AND ONLY

Two Horses To Drive It,

Adapted to all kinds of

Threshing Powers,

Fitted for BAND AND TUMBLING ROD, and will saw from twenty to thirty-five cords Wood, Staves, Shingle Blocks or Hubs.

WARRANTED COMPLETE,

And delivered, free from charges, at any point on the Michigan Central or Michigan Southern Rail Road, for \$60. Orders will meet with prompt attention.
Kalamazoo, Oct 20th. 1855. nov-3m

GEO. N. BOLLES.

OHIO AGRICULTURAL COLLEGE.

THE OHIO AGRICULTURAL COLLEGE holds its second Lecture season at Cleveland, commencing the first of December, and continuing twelve weeks. Farmers, whether old or young, this institution places within your reach the means of acquiring a knowledge of all the sciences that have important relations to Agriculture. What intelligent farmer has not felt the need of such an institution? PLAN.—Instruction given in lectures, as in Medical Colleges. Four Lectures will be given daily during the whole term. The subjects embraced in the course are

1st. Those that relate to the land. Geology, Mineralogy, Chemistry, &c.

2d. Those that relate to Plants. Botany and Vegetable Physiology, Field Crops, Orchard, Gardening, &c.

3d. What relates to Animals. Comparative Anatomy and Physiology; Natural History of Domestic Animals, Veterinary Medicines, Insects, &c.

4th. What relates to Labor. Rural Architecture and Landscape Gardening, Draining, Use and Construction of Implements, Surveying, Farm Book Keeping, &c. &c.

Lecturers.—Prof. J. P. Kirtland, Prof. James Dacomb, Prof. Samuel St. John, Prof. J. H. Fairbairn, Prof. N. F. Townshend.

ADDITIONAL FACILITIES.—A Reading Room, supplied with the principal Agricultural Periodicals, will be open to the Students at all hours.

TERMS: For the entire course, \$40.

Board and Rooms may be obtained at \$1.50 per week, exclusive of fuel and lights. This Institution is designed to be permanent, and is therefore incorporated as the Ohio Agricultural College.

For further particulars address the Secretary of the Board.

THOS. BROWN, Secretary, Cleveland, Ohio, nov11

J. D HARRIS & CO.

PROPRIETORS OF

RUGGLES SELF-ACTING CHEESE-PRESS.

Patented July 4th. 1853.

THIS is a press in which the cheese applies its own power, commencing gradual, and steadily increasing in power, until the cheese is sufficiently pressed—requiring no additional weight, the heft of the cheese being sufficient to press itself. It requires no attention after it is put into press until it wants turning, then all you have to do is to take it out when sufficiently pressed.

All persons wishing to purchase State or County rights, for any part of the United States, can do so on liberal terms, by applying to the subscribers at Fitchburgh, Massachusetts.

Nov-3m

G. D HARRIS,
A. R. SMITH.

SEYMOUR & LONG,

CARRIAGE, WAGON AND SLEIGH MAKERS.

KEEP constantly on hand Light Wagons and Carriages, Open and Top, of their own manufacture, of the most improved patterns. All who are in want of such would do well to call and examine our assortment before going elsewhere. Prices as in factory, and terms easy.

Battle Creek, Mich. Nov. 10th, 1854.

SEYMOUR & LONG,
dec6m

TO PE SOUS OUT OF EMPLOYMENT.

The Great Book of the Year.

From the Editors of the Philadelphia Post.—“We think we may safely pronounce this the most thorough and valuable work on the Empire of Russia that has yet appeared in the English language.”

From the Editor of the American Phil. Courier.—“Truly a valuable Work—the great Book of the day.”

Send for one Copy and try it among your Friends.

WORK FOR ALL, AND WORK THAT PAYS.

In selling, in every part in the United States—our new work on the “**Russian Empire**,” and other popular PICTORIAL BOOKS. Terms, Catalogues and Canvassing Circulars, forwarded free of postage, on addressing,

ROBERT SEARS, Publisher,
181 William-st., New York.

SEND FOR ONE COPY. Single copies of the Work on “**RUSSIA**,” (the most elegant and useful volume of the year) carefully enveloped in stout paper, and forwarded at our risk and expense to any Post Office, on receipt of the Retail Price, THREE DOLLARS. Early application is necessary to secure the most beautiful and perfect copies.

PERSONS WISHING TO ACT AS AGENTS, AND DO A SAFE BUSINESS, can send for a specimen volume, and a well bound Subscription Book, (price of both \$3.25, sent free of postage,) and obtain from one to two hundred subscribers, to be delivered at a certain time to be agreed on, say in thirty or forty days from the time of going. Address as above.

Nov-2.

R. S.

AGRICULTURAL Furnaces, from $\frac{1}{2}$ to 2 bbls. size.
Anglt. By D. O. & W. S. PENFIELD.

RAIL ROAD Horse Powers, Threshers and Separators, Saw Mills, Straw Cutters, always on hand.
[Jy-31] D. O. & W. S. PENFIELD.

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